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Syllabus
Academic Session 2017-18

April -May

1. Whole Numbers
 - Introduction to the concept of whole numbers
 - Closure, commutative, associative properties with respect to four basic operations
 - Identity (for addition and multiplication)
 - Distributive property
2. Basic Geometrical Ideas
 - Line, line segment, ray
 - Open and closed figures
 - Types of angles, triangles, quadrilaterals
 - Circles
3. Fraction
 - Addition, subtraction, multiplication and division of fractions
 - Word problems

July

4. Decimals
 - Conversion of units
 - Addition, subtraction, multiplication and division of decimals
 - Word problems
5. Playing with numbers
 - Divisibility tests and their applications
 - Finding HCF by long division method
 - Word problems based on HCF and LCM
 - Relation between HCF and LCM of two or more numbers

August

6. Integers
 - Introduction of negative numbers
 - Representation of integers on a number line
 - Properties of integers
 - Addition and subtraction of integers

September Revision for first term examination

October

7. Understanding Elementary Shapes
- Parallel, intersecting and perpendicular lines
 - Types of angles, triangles and polygons
 - 3 dimensional shapes

November

8. Mensuration
- Perimeter of plane figures
 - Area of irregular shapes.
 - Area of rectangle and square
9. Algebra
- Introduction to the concept of constants and variables
 - Types of Algebraic expressions
 - Solving simple equations

December

10. Data Handling
- Pictograph
 - Bar graph

January - February

11. Ratio and Proportion
- Concept of ratio
 - Proportion as equality of two ratios
 - Unitary method
12. Practical Geometry
- Angles and their bisectors
 - Perpendicular and Perpendicular bisector

Revision for final examination

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PROJECT
SYMMETRY

Object:

- Observation and identification of 2 - D symmetrical objects for reflection symmetry.
- Operation of reflection (taking mirror images) of simple 2 - D objects.
- Recognizing reflection symmetry (identifying axes).

Important Notes:

- You may refer to your textbook for details on the topic. It is a part of your curriculum but no direct question will be asked in written exam based on this.
- The Rubric for assessment is given at the end of the Project for your reference.
- There will be negative marking for the delay in the submission of the project.
- This project should be submitted as a file/folder including a Cover page and the activities mentioned below.

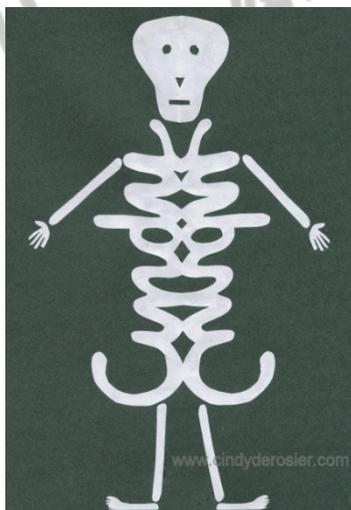
Activity 1 : INTRODUCTION

Give a brief introduction of Symmetry and supplement your content with pictures/ diagrams.

Activity 2: NAME SKELETON

Fold a white paper in half, write your name in cursive, and cut out around the name (this forms the body of the skeleton). Now add the head, arms and legs. And then mount the "name skeleton" on a black sheet.

For example:

**Activity 3: SYMMETRY IN NATURE**

Collect and paste three leaves of different plants/ trees. The leaves should be **SYMMETRICAL**. Also show their line of symmetry.

Activity 4: INK BLOT

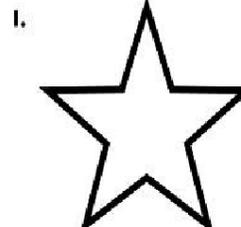
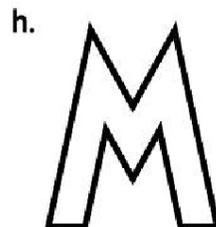
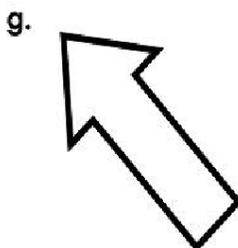
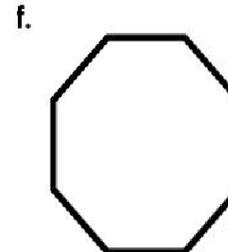
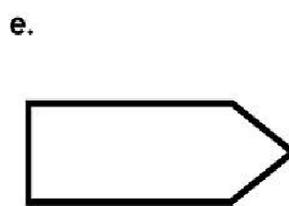
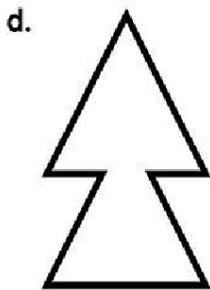
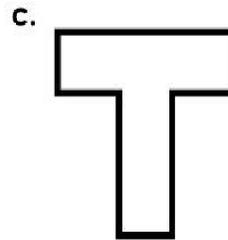
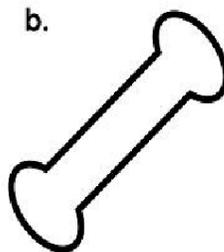
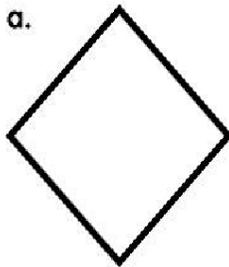
Make symmetrical figures using ink blot activity. Take a piece of paper. Fold it in half. Open the fold. Spill a few drops of ink on one half side. Now press the halves together. Use your creation and give it a meaning. What do you see? Is the resulting figure symmetric? If yes, draw the line of symmetry.

For example:



Activity 5: LINE OF SYMMETRY

Q1. Draw lines of symmetry on the shapes below using different colours (some shapes may have more than one line of symmetry).



Q2. Find the mirror image with respect to the given mirror line and colour following figures. Also, show the line of symmetry with a different colour.

The first has been done for you as an example.

The activity consists of 15 numbered boxes, each containing a shape on a dot grid with a vertical dashed mirror line. The shapes are as follows:

- 1: A square with a vertical dashed line through its center. (Example)
- 2: An L-shaped figure on the left of the mirror line.
- 3: A right-angled triangle on the left of the mirror line.
- 4: A square with a smaller square inside it, on the left of the mirror line.
- 5: A complex stepped shape on the left of the mirror line.
- 6: A stepped shape on the left of the mirror line.
- 7: A shape with a pointed right side on the left of the mirror line.
- 8: A hexagon on the left of the mirror line.
- 9: A stepped shape on the left of the mirror line.
- 10: A stepped shape on the left of the mirror line.
- 11: A shape with a pointed right side on the left of the mirror line.
- 12: A complex stepped shape on the left of the mirror line.
- 13: A shape with a pointed right side on the left of the mirror line.
- 14: A stepped shape on the left of the mirror line.
- 15: A right-angled triangle on the left of the mirror line.

(NOTE: Take photocopy of Q1 and Q2 of Activity 5)

RUBRIC FOR THE SYMMETRY PROJECT

Marks →	2	1.5	1
Activities ↓			
<u>Activity 1:</u> Introduction	All information is correct and relevant with proper examples/ figures.	Most information is correct and relevant with proper examples/ figures.	Some information is correct and relevant with proper examples/ figures.
<u>Activity 2:</u> Name Skeleton	The picture is neat and as per the instructions given.	The picture is neat but some requirement is missing.	The picture lacks neatness and instructions are not followed properly.
<u>Activity 3:</u> Symmetry in Nature	All the leaves are symmetrical and line of symmetry is shown for all of them.	Leaves are symmetrical but line of symmetry is not shown for some.	Leaves are not symmetrical.
<u>Activity 4:</u> Ink Blot	The drawing is neat/creative/as per the guidelines.	The drawing is neat and creative but all requirements are not met.	The drawing is neat but lacks creativity.
<u>Activity 5:</u> Line of Symmetry	All the questions are attempted correctly.	Most of the questions are attempted correctly.	Some questions are attempted correctly.

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Assignment No. 1
Whole Numbers

1. Find the sum by suitable rearrangement:

- a) $165+578+335$
- b) $373+227+667$
- c) $268+415+332$
- d) $557+288+143+12$

2. Find the product using the properties of multiplication:

- a) $625 \times 3 \times 16$
- b) $25 \times 89 \times 40$
- c) $4 \times 1365 \times 25$
- d) $4 \times 2 \times 25 \times 5$

3. Use distributive property and find:

- a) 535×98
- b) 105×68
- c) $279 \times 93 + 7 \times 279$
- d) $(35 \times 14) + (15 \times 14) - (50 \times 14)$
- e) $(578 \times 1055) - (578 \times 55)$
- f) $96 \times 73 - 94 \times 73$

4. There are 15 boys and 15 girls in a class. They are collecting money for a cause. Each boy collected Rs 253 and each girl collected Rs 247. How much money was collected by the class?

5. Neha buys 456 books and 544 notebooks. If the cost of a book and a notebook is Rs 25 each, find how much total money does she spend? (Use suitable property)

6. Name the property:

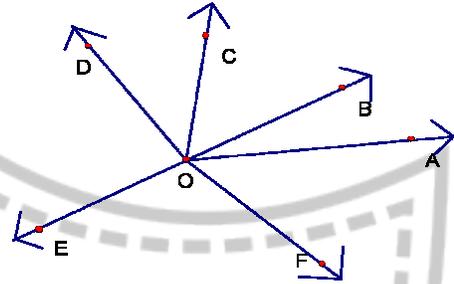
- a) $(13 + 6) + 8 = (8 + 13) + 6$
- b) $15 \times (100 - 2) = (15 \times 100) - (15 \times 2)$
- c) 5×6 is a whole number.
- d) $3 \times (8 \times 9) = 3 \times (9 \times 8)$

Brain-Teasers

- 1. From a basket of mangoes when counted in twos there was one extra, counted in threes there were two extra, counted in fours there were three extra, counted in fives there were four extra, counted in sixes there were five extra. But counted in sevens there were no extra. At least how many mangoes were there in the basket?
- 2. Which two digit numbers when added to 27 get reversed?
- 3. There is a number which is very peculiar. This number is three times the sum of its digits. Can you find the number?

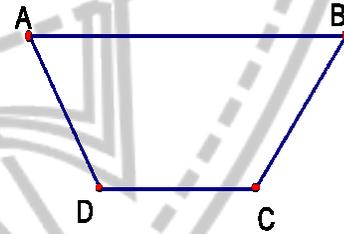
Assignment No.2
Basic Geometrical Ideas

1. In the given figure:
 - a. Name any two rays?
 - b. Name the opposite rays formed.
 - c. Name the point of intersection of ray OA and ray OF.

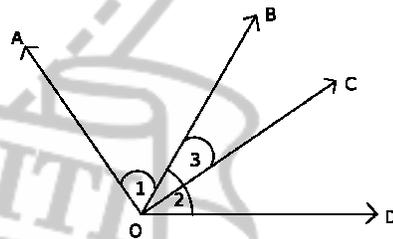


2. Draw a circle with diameter 7cm and then:
 - a. Mark the centre.
 - b. Draw a chord.
 - c. Show the major arc with blue colour and minor arc with red formed by the chord.
 - d. Colour the minor segment as yellow and major segment as green.
 - e. Draw a secant.
3. Illustrate, if possible, each one of the following with a rough diagram:
 - a. A simple closed curve that is not a polygon.
 - b. An open curve made up entirely of line segments.
 - c. A polygon with two sides.
 - d. A polygon with minimum number of sides.

4. From the given figure:
 - a. Give one pair of parallel sides.
 - b. Name 2 diagonals.
 - c. Give one pair of adjacent sides.
 - d. Name all the vertices.
 - e. Name the shape ABCD.



5. From the given figure, give full names of the following angles:
 - a. $\angle 1$
 - b. $\angle 2$
 - c. $\angle 3$

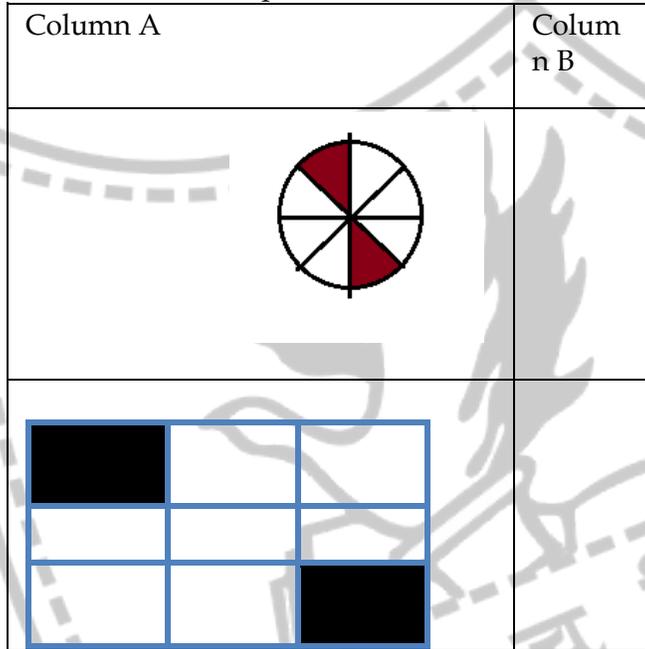


Web Resources: Practice measuring of angles using protractor using

- <http://goo.gl/OfTk3A>
- <http://goo.gl/PEsdqT>
- <http://goo.gl/KQ6KfV>

Assignment 3(A)
Warm up Exercise

1. Write the fraction of the shaded portion :



2. Antra bought one dozen eggs and used seven of them in baking a cake. What fraction of the total number of eggs was used by her?

3. What fraction of numbers from 1 to 15 are prime numbers?

4. Find the missing number to make the fractions equivalent.

a. $\frac{5}{12} = \frac{x}{24}$

b. $\frac{6}{48} = \frac{1}{y}$

5. Which pair of fractions are equivalent:

a. $\frac{9}{15}, \frac{3}{10}$

b. $\frac{3}{11}, \frac{15}{33}$

6. Reduce the following to its simplest form:

a. $\frac{12}{30}$ b. $\frac{6}{15}$ c. $\frac{2}{5}$

7. Write each improper fraction as a mixed fraction:

a. $\frac{29}{4}$ b. $\frac{63}{10}$ c. $\frac{89}{9}$

8. Write each mixed fraction as an improper fraction:

a. $5\frac{3}{4}$ b. $6\frac{4}{9}$ c. $12\frac{1}{8}$

9. Mrs. Gupta distributed a bag of chocolates amongst four children. Payal got $\frac{3}{15}$ of the chocolates, Shubh got $\frac{3}{8}$ of the chocolates, Raj got $\frac{3}{20}$ of the chocolates and Lara got $\frac{3}{10}$ of the chocolates. Arrange the names of the children in the order from who got the least to who got the maximum number of chocolates.

10. Find:

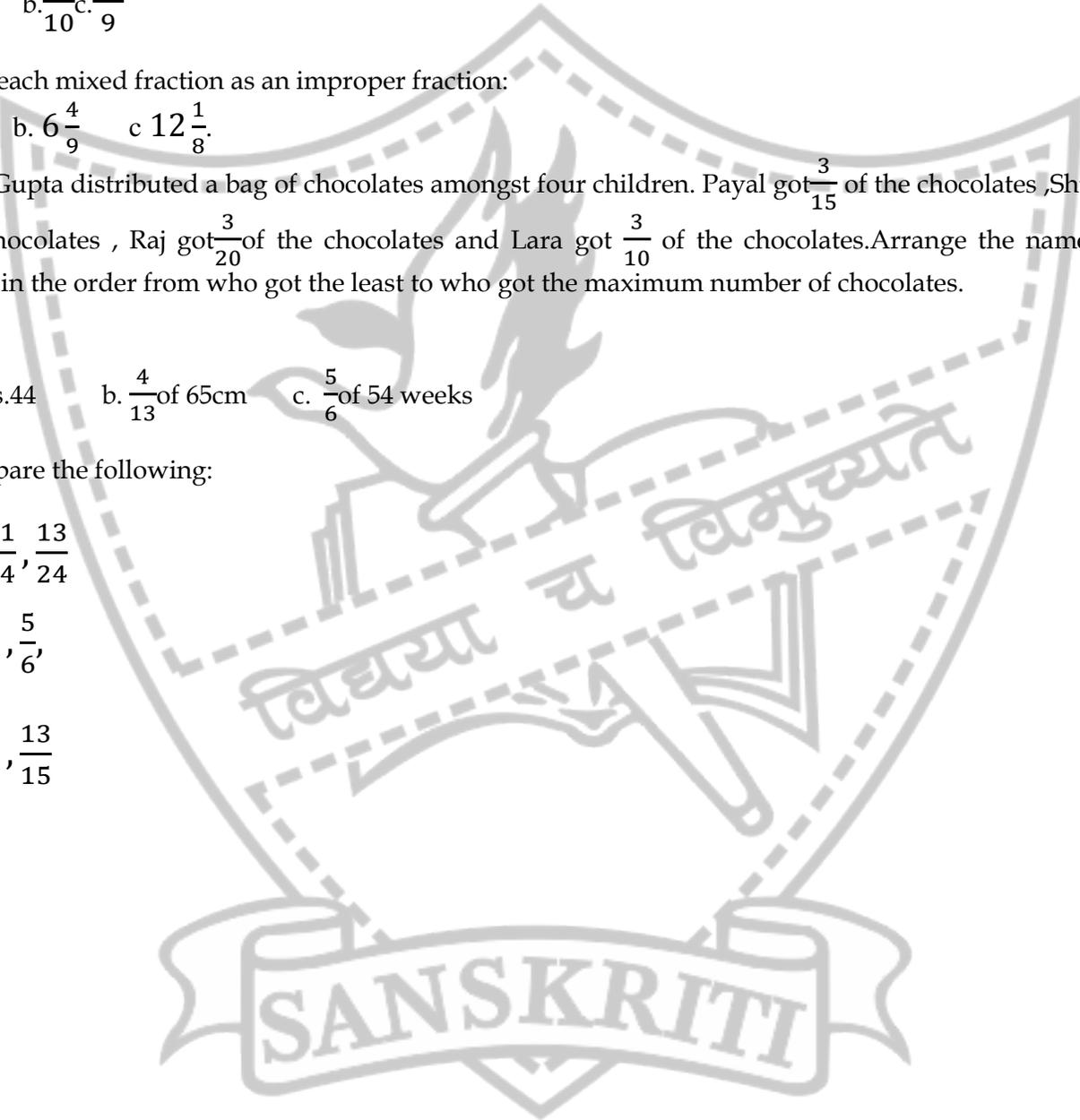
a. $\frac{3}{11}$ of Rs.44 b. $\frac{4}{13}$ of 65cm c. $\frac{5}{6}$ of 54 weeks

11. Compare the following:

a. $\frac{11}{24}$, $\frac{13}{24}$

b. $\frac{4}{5}$, $\frac{5}{6}$

c. $\frac{5}{6}$, $\frac{13}{15}$

The logo of Sanskriti School is a shield-shaped emblem. At the top, it features a stylized tree with a bird perched on a branch. Below the tree, the Sanskrit motto 'विद्यया च विमुच्यते' (Vidyayā ca vimucyate) is written in Devanagari script. At the bottom of the shield, the word 'SANSKRITI' is written in a banner. Below the shield, the text 'THE CIVIL SERVICES SCHOOL' is written in large, bold, capital letters.

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Assignment No.3(B)FractionAddition and Subtraction

1. Add and express your answer in the simplest form:

a) $\frac{2}{5} + \frac{4}{5}$

b) $\frac{3}{5} + \frac{13}{20}$

c) $\frac{1}{8} + \frac{5}{12} + \frac{5}{6}$

d) $3\frac{1}{2} + 5\frac{3}{8}$

e) $13\frac{2}{3} + 1\frac{1}{4} + 4\frac{5}{12}$

2. Subtract and express your answer in simplest form:

a) $\frac{26}{35} - \frac{12}{35}$

b) $1 - \frac{3}{4}$

c) $\frac{5}{9} - \frac{3}{7}$

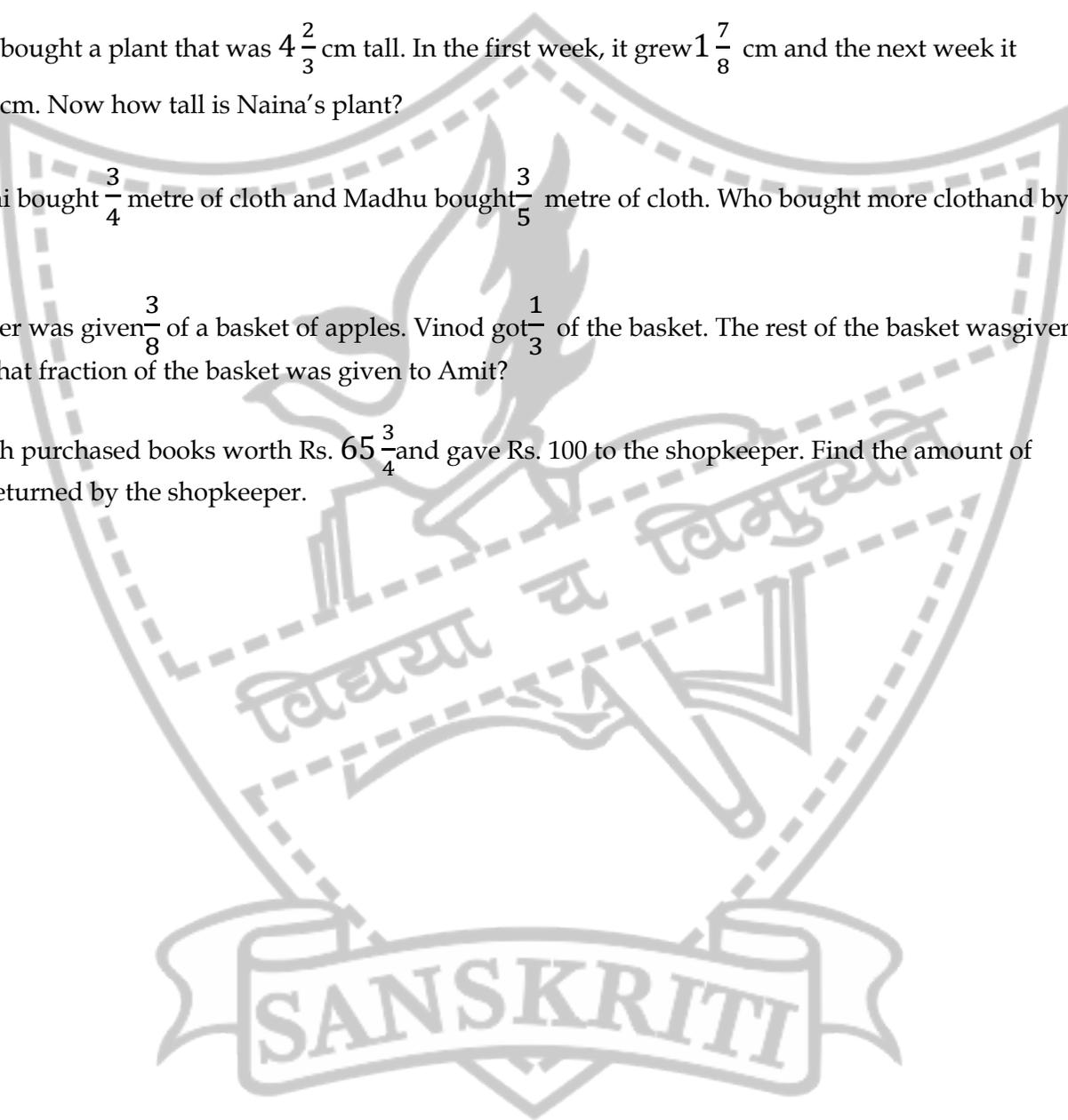
d) $23\frac{5}{8} - 16\frac{5}{6}$

e) $12\frac{15}{16} - 7\frac{3}{4}$

3. A wheel barrow can hold upto $26\frac{1}{4}$ kg. Four rocks that weigh $6\frac{1}{8}$ kg, $8\frac{1}{2}$ kg, $4\frac{3}{4}$ kg and

$7\frac{3}{4}$ kg are to be loaded into the wheel barrow. Can the wheel barrow hold all four rocks?

4. The sum of two fractions is $6\frac{1}{6}$. If one of the fractions is $2\frac{1}{3}$, find the other fraction.
5. Naina bought a plant that was $4\frac{2}{3}$ cm tall. In the first week, it grew $1\frac{7}{8}$ cm and the next week it grew $3\frac{1}{2}$ cm. Now how tall is Naina's plant?
6. Rashmi bought $\frac{3}{4}$ metre of cloth and Madhu bought $\frac{3}{5}$ metre of cloth. Who bought more cloth and by how much?
7. Joginder was given $\frac{3}{8}$ of a basket of apples. Vinod got $\frac{1}{3}$ of the basket. The rest of the basket was given to Amit. What fraction of the basket was given to Amit?
8. Saransh purchased books worth Rs. $65\frac{3}{4}$ and gave Rs. 100 to the shopkeeper. Find the amount of money returned by the shopkeeper.

The logo of Sanskriti School is a shield-shaped emblem. Inside the shield, there is a stylized figure of a person holding a torch, with a banner across the middle containing the Sanskrit motto 'विद्यया च विमुच्यते'. Below the shield is a ribbon with the word 'SANSKRITI' written on it.

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Assignment No.3(C)Fractions-Multiplication and Division

1 Solve and give the answer in the lowest term.

(a) $10 \times 3\frac{2}{5}$ (b) $8 \times 4\frac{3}{10}$ (c) $2\frac{1}{2} \times 4\frac{3}{4}$ (d) $\frac{2}{9} \div 3$ (e) $100 \div \frac{3}{10}$

- 2 Seema reads $3\frac{1}{2}$ pages of a book in one hour. How many pages will she read in $2\frac{1}{4}$ hours?
3. A satin ribbon $7\frac{1}{2}$ m long was cut into 5 equal parts. Find the length of each part.
4. The cost of $5\frac{1}{2}$ kg of grapes is Rs 550. At what price per kg are they being sold?
5. From a rope that is 20m long, Rohit cut off 3 pieces of $2\frac{1}{3}$ m each and Nanda cut off 2 pieces of $4\frac{1}{2}$ m each. What length of the rope is left?
6. Reeta walks $\frac{5}{7}$ km in 1 hour. How far does she walk in $3\frac{1}{2}$ hours?
7. The product of two fractions is $68\frac{3}{5}$. If one of them is 49, find the other?
8. Lakshay reads a story book for $2\frac{3}{4}$ hours every day. He reads the entire book in 8 days. How many hours did he take to read the entire book?

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Assignment No.4
Decimals

1. Convert the following fractions to decimals

(a) $\frac{47}{8}$ (b) $\frac{3}{5}$

2. Convert the following decimals to fractions

(a) 0.872 (b) 5.005

3. Write as a decimal:-

(a) $6\frac{3}{1000}$ (b) $\frac{245}{1000}$

4. Write in decreasing order:-

75.4, 75.39, 75.258, 75.5, 75.20, 75.75

5. Write as a fraction (lowest term):-

(a) 2.8 (b) 1.25

6. Madan walked 12.65 km on Monday, 13km50m on Tuesday and 11.025 km on Wednesday. How much distance did he walk in all?

7. Faridawent to market and spent Rs 105.50 on vegetables and Rs 89.75 on fruits. If she had TakenRs 200 with her, how much money did she bring back?

8. Shamlabought 10.75 kg of potatoes and 11.23 kg of onions while Sameera bought 8.52 kg of fruits and 15.31 kg of Rice. Who had more weight to carry and by how much?

9. Simplify:

(a) 4.89×10 (b) 0.045×1000 (c) 100×95.3
(d) $9192.02 \div 100$ (e) $0.5 \div 10$ (f) $2.11 \div 1000$

10. Multiply:

(a) 99×1.63 (b) 0.07×83.5 (c) 117.6×21 (d) 79.74×3.6

11. Evaluate the following

(a) $188.8 \div 8$ (b) $2.568 \div 12$ (c) $370.8 \div 0.9$ (d) $1.274 \div 0.13$

12. Eleven books are stacked on top of each other. If each book is 2.35cm thick, find the height of the stack.

13. Purab covers 17.25km in 1.5 hours on his bicycle. Find how many kilometers will Purab cover in one hour.

14. Convert:

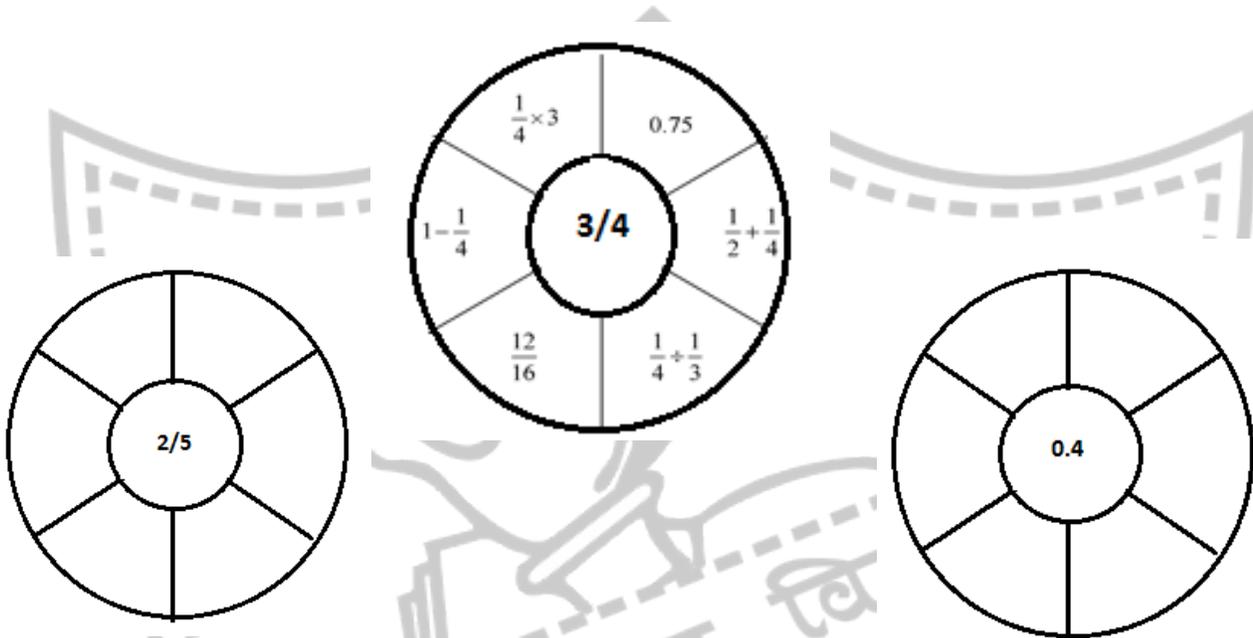
(a) 5 km to mm (d) 46.5 g to kg
(b) 457 cm to mm (e) 78 m 7 cm to cm
(c) 8945 ml to l (f) 125 km 50 m to km

Web Resources: Revise conversion of Fractions to Decimals with

- <http://goo.gl/DOXM3w>
- <http://goo.gl/J5SWNp>

Fun Corner

Each expression between the consecutive spokes of the cycle wheel represents the number at the centre of wheel. Similarly, complete the other wheels.

**BHASKARACHARYA - Indian Mathematician**

- **Bhaskara** (1114 A.D. -1185 A.D.) or Bhaskaracharya is the most well known ancient Indian mathematician.
- He was born in a village of Mysore district.
- He was the first to declare that any number divided by zero is infinity and that the sum of any number and infinity is also infinity.
- He has written a lot about zero, surds, permutation and combination.
- He wrote, "The hundredth part of the circumference of a circle seems to be straight. Our earth is a big sphere and that's why it appears to be flat."
- He is famous for his book *Siddhanta Siromani* (1150 A.D.). It is divided into four sections - *Leelavati* (a book on arithmetic), *Bijaganita* (algebra), *Goladhayaya* (chapter on sphere -celestial globe), and *Grahaganita* (mathematics of the planets).

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Assignment No.5
Playing with numbers

1. Test the divisibility of the following numbers by 11.
a. 7169803 b. 901351 c. 818950
2. Test the divisibility of the following numbers by 12.
a. 7632 b. 8432 c. 14382.
3. Test the divisibility of the following numbers by 15.
a. 63150 b. 45108 c. 34560
4. Determine the size of the longest tape which can be used to measure exactly the lengths 7m, 3m 85cm and 12m 95cm.
5. Find the least number which can be divided by 25, 40 and 60.
6. Three bells ring at a time interval of 25, 40 and 50 seconds. If they rung together now, after how long will they next ring together?
7. The HCF of 210 and 390 is 30. Find their LCM.
8. Find the largest number which divides 868, 651, 1302 and 1085 exactly.
9. The LCM of two numbers is 840 and their HCF is 4. If one number is 28, find the other.
10. The HCF of two numbers is 12 and their product is 4320. What is their LCM? If one of the numbers is 60, what is the other number?

Do you know?***PERFECT NUMBERS***

A perfect number is a number that equals the sum of all its factors, excepting the number itself. The perfect number 6 is the sum of 1, 2 and 3. The first five perfect numbers are 6, 28, 496, 8128 and 33550336.

- Find the factors of first four perfect numbers and check the definition.
- The existence of an odd perfect number is not known.
- Numbers, which are not perfect, are either deficient or abundant depending on whether the sum of its proper divisors is less than the number or more than the number in question.

ENRICHMENT TIME

- Take any multiple of 9. Now separate the digits of the multiple and add them. Repeat the process with the result until you obtain a one digit number. What is it? Is it the same number every time?
- Think of any whole number. Multiply the number by itself. To the product of the number add the number you started with. Now add 17. What is the number? Is your answer a prime number?

HAILSTONE NUMBERS

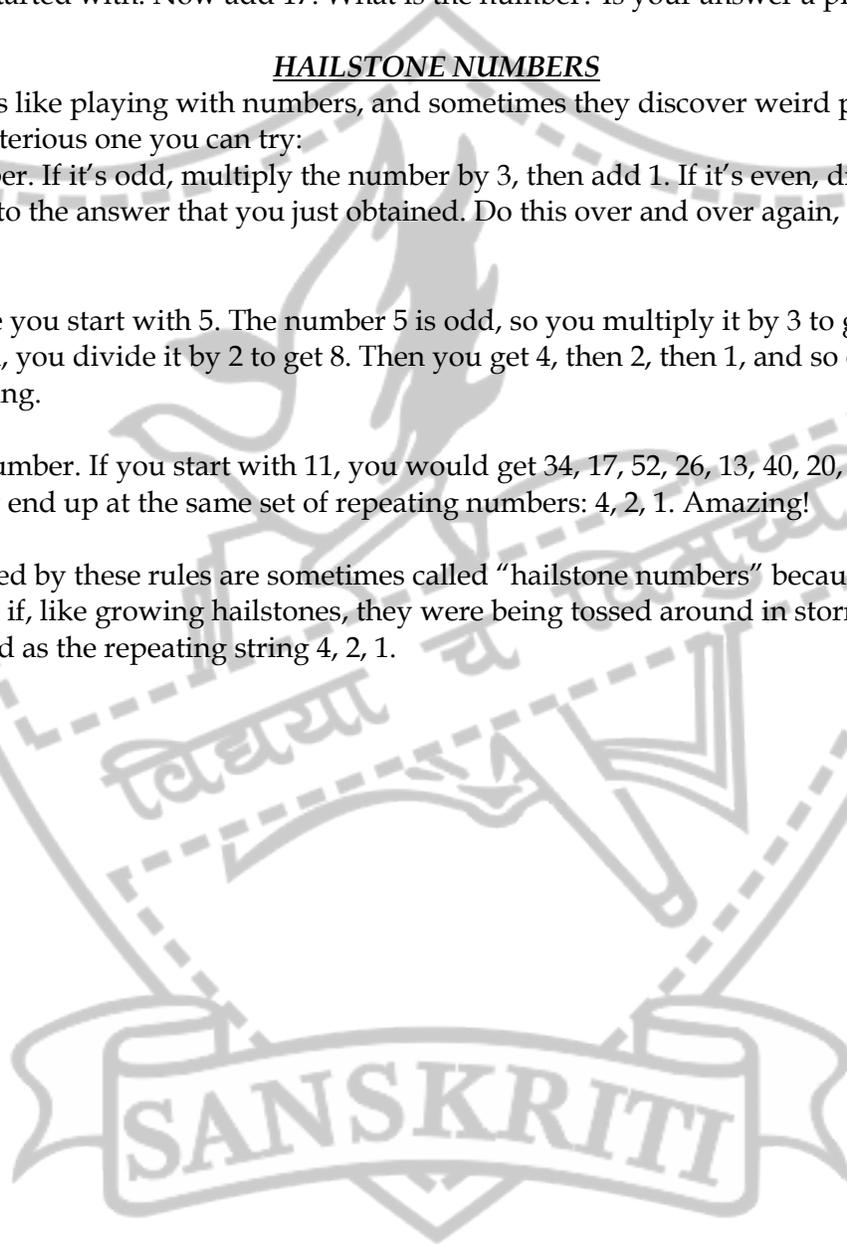
Many mathematicians like playing with numbers, and sometimes they discover weird patterns that are hard to explain. Here's a mysterious one you can try:

Pick any whole number. If it's odd, multiply the number by 3, then add 1. If it's even, divide it by 2. Now, apply the same rules to the answer that you just obtained. Do this over and over again, applying the rules to each new answer.

For example, suppose you start with 5. The number 5 is odd, so you multiply it by 3 to get 15, and add 1 to get 16. Because 16 is even, you divide it by 2 to get 8. Then you get 4, then 2, then 1, and so on. The final three numbers keep repeating.

Try it with another number. If you start with 11, you would get 34, 17, 52, 26, 13, 40, 20, 10, 5, 16, 8, 4, 2, 1, and so on. You eventually end up at the same set of repeating numbers: 4, 2, 1. Amazing!

The numbers generated by these rules are sometimes called "hailstone numbers" because their values go up and down wildly – as if, like growing hailstones, they were being tossed around in stormy air – before crashing to the ground as the repeating string 4, 2, 1.



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Assignment No.6
Integers

1. Simplify:
 - a. $-25 + 30$
 - b. $-28 - 32$
 - c. $45 - 55$
 - d. $-5 - 94$
 - e. $-85 + 98$
2. Simplify:
 - a. $(-13) + (-8)$
 - b. $(-111) - (+55)$
 - c. $46 + (-84)$
 - d. $-23 - (-44)$
 - e. $35 - (-70)$
3. Simplify the following:-
 - (a) $27 - (-49) + 36$
 - (b) $|-16| - |-6|$
 - (c) $-|-7| - |-5|$
 - (d) $|-10| - |-12| + |-3|$
4. From the sum of 830 and -250 , subtract the additive inverse of 970.
5. Sia made a profit of Rs546 from the candles she sold in Diwali mela in 2005. Subsequently, the next two years were not as lucky for her as she had to suffer loss of Rs285 and Rs315 in 2006 and 2007 respectively. What was the status of her account at the end of 2007?
6. Simplify the following:
 - a. $-26 + [-3 + 14 - (-8)]$
 - b. $(-24) + 67 - 187$
 - c. $-(-450) + [(-70) + (-45)]$
 - d. $[56 - 45 + (-11)] - [-45 - (-15)]$
7. a. What is the additive inverse of $-(-4)$?
b. Add the successor of (-88) and the predecessor of 8.
8. The following were the scores of Sanskriti school team in the five rounds of inter school quiz:
 $+10, -5, +5, +15, -1$ What was the final score?
9. A car travelled 55 km east and from there 138 km towards west. And, from there again the car traveled 42 km towards east. What is the final position of the car?
10. A man deposited Rs 5000 in his bank account. He withdrew Rs 3824 from the account on the next day. Later he deposited Rs 1534. What is his final balance in the account?

Web Resources: Let's get introduced to Negative Numbers by

- <http://goo.gl/ZF7+NI>

Going Up and Down with Integers

Tanya is riding on an elevator in a building that has many floors and one basement floor underground.

Answer these questions regarding Tanya's adventure riding the elevator up and down the building.

- 1) From the first floor, Tanya goes up 8 floors and then down 3 floors. What floor is she now on?
- 2) Tanya is on the 18th floor. She goes down 10 floors and then up 13 floors. What floor is she now on?
- 3) Tanya is on the 7th floor. She then goes up to the 19th floor. How many floors did she go up?
- 4) Tanya is on the 2nd floor. She goes down 3 floors. What floor is she now on?
- 5) From the top floor, Tanya goes down to the 8th floor, traveling 17 floors. What is the top floor?
- 6) Tanya does not know what floor she is on. She presses the button to go to the 10th floor and the elevator travels 4 floors. What floor was she on originally?

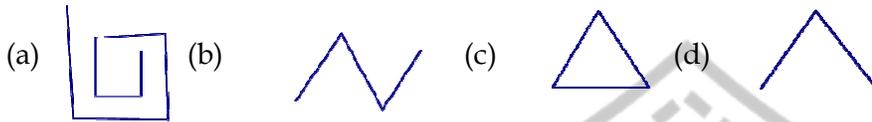
ENRICHMENT TIME

- p and q are two integers such that p is the predecessor of q . Find the value of $p - q$.

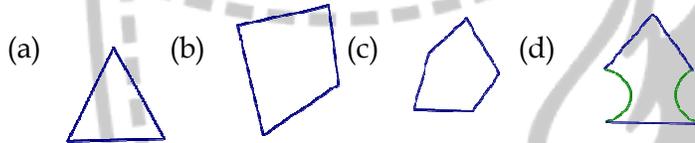
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Assignment No.7
Understanding Elementary Shapes

1. Identify the odd one out:



2. Which of the following figures is not a polygon:



3. How many right angles do you make if you start facing:

- South and turn clockwise to the west?
- West and turn to west?

4. Name the types of following triangles:

- $\triangle ABC$ with $AB = 8.7$ cm, $AC = 4$ cm and $BC = 6$ cm.
- $\triangle PQR$ such that $PQ = QR = PR = 5$ cm.
- $\triangle XYZ$ with $m\angle Y = 90^\circ$ and $XY = YZ$.
- $\triangle LMN$ with $m\angle L = 30^\circ$, $m\angle M = 70^\circ$ and $m\angle N = 80^\circ$.

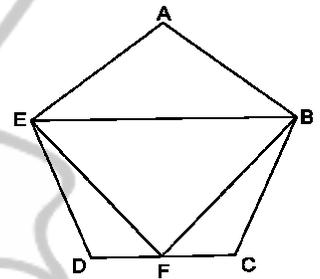
5. Shekhar is moving towards north-west direction. In which direction will he be if he turns through:

- 2 right angles?
- a complete angle?

6. In the given figure, BE is parallel to CD ; $AB = AE = 3$ cm and $BF = EF = 5$ cm.

What kind of quadrilateral is:

- BCDE
- AEFB

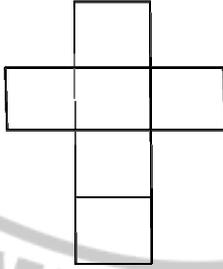


7. Fill ups:-

- A triangular prism has _____ number of edges.
- A quadrilateral having one pair of opposite sides parallel is called _____.
- Eight sided polygon is called _____.
- A rhombus with all its angles as right angles is called _____.
- A cuboid has _____ vertices while cylinder has _____.
- 190° is a _____ angle.

8. Identify the solids whose **Nets** are given below:

a.



b.



Web Resources: Explore the third dimension by

- <http://goo.gl/9V2lYw>

ENRICHMENT TIME

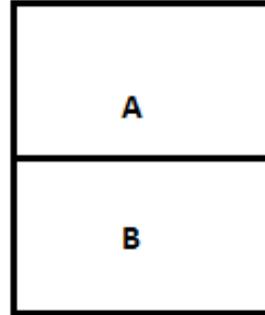
- Explore the properties of diagonals of various quadrilateral and answer the following questions:
 1. If the diagonals of a quadrilateral are bisect each other at 90° , then this quadrilateral is
 - i. A rectangle
 - ii. A rhombus
 - iii. A kite
 - iv. None of these
 2. A square has its diagonals _____ (equal / unequal)
 3. State true or false:
The diagonals of a rectangle are perpendicular to each other.



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ENRICHMENT TIME

- The cost of fencing a rectangular field at Rs.30/m is Rs.2400.If the length of the field is 24 m, then find its breadth.
- The length of the diagonal of a square is 20m.Find its area.
- Maya has a square swimming pool in her garden, with four beautiful trees at the corners. She would like to exactly double the area of the pool, but she doesn't want the trees to be cut down. How can she do it? (try dividing the square into 4 equal triangles)
- The rectangle in fig1. is cut along the middle. The two pieces are rejoined to form another rectangle as shown in fig2.



What will definitely be same for fig 1 and fig 2, Area or Perimeter or Both?

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Assignment No.9
Algebra

1. Write an algebraic expression for the following:
 - a. 7 added to x .
 - b. 5 subtracted from y .
 - c. x subtracted from 2.
 - d. The product of y and z .
 - e. The quotient of x by 3.

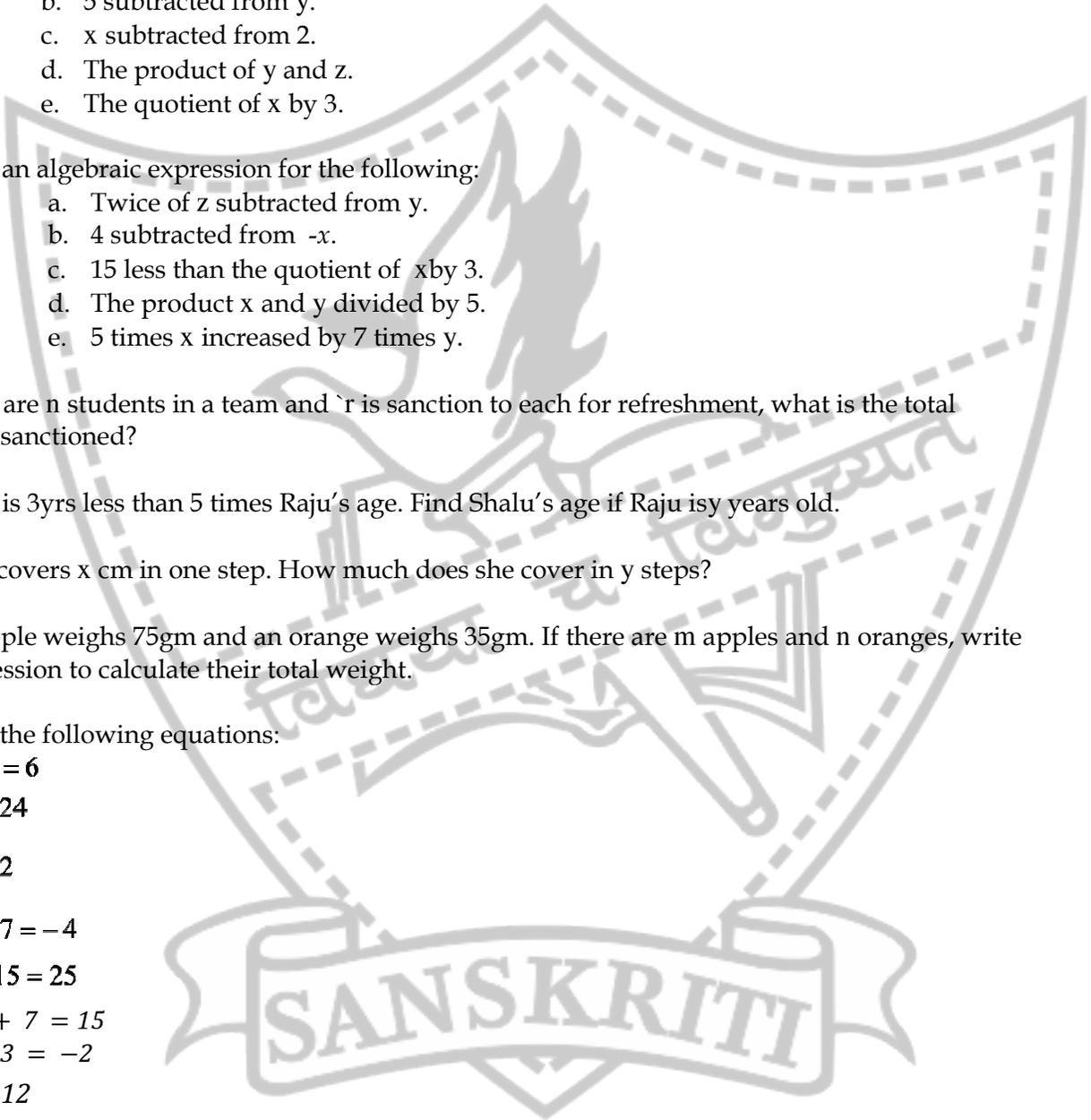
 2. Write an algebraic expression for the following:
 - a. Twice of z subtracted from y .
 - b. 4 subtracted from $-x$.
 - c. 15 less than the quotient of x by 3.
 - d. The product x and y divided by 5.
 - e. 5 times x increased by 7 times y .

 3. There are n students in a team and ₹ r is sanctioned to each for refreshment, what is the total amount sanctioned?

 4. Shalu is 3 yrs less than 5 times Raju's age. Find Shalu's age if Raju is y years old.

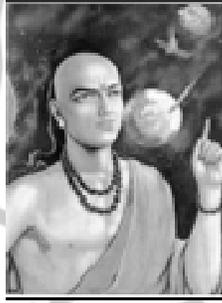
 5. Asha covers x cm in one step. How much does she cover in y steps?

 6. An apple weighs 75gm and an orange weighs 35gm. If there are m apples and n oranges, write an expression to calculate their total weight.

 7. Solve the following equations:
 - a. $x - 7 = 6$
 - b. $8x = 24$
 - c. $\frac{x}{5} = 12$
 - d. $3a - 7 = -4$
 - e. $5y - 15 = 25$
 - f. $4m + 7 = 15$
 - g. $z + 3 = -2$
 - h. $\frac{3n}{4} = 12$
 - i. $\frac{x}{4} - 2 = 4$
 - j. $7x = 56$
- 
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ENRICHMENT TIME

- From the sum of $a - b$ and $b - c$ subtract $c - a$.
- Asha went to the market and bought 5 pencils and 2 story books for Rs 200. Salim bought 6 pencils and 3 story books for Rs 400. Write out the equations for what Asha and Salim bought individually. Also give an equation for the total number of books and the pencils bought and the money spent.
- Think of a number between 1 to 10. Square it. Then add 28. Now subtract 10 from it. Subtract the square of the number. Halve the number that you have got. You are left with 9! Now try and figure out how the answer 9 is arrived. Is it the same answer every time? Can you form a suitable equation for it?

ARYABHATTA - Indian Mathematician

- Aryabhata was born in 476 A.D in Kusumpur, India.
- He completed his studies at the University of Nalanda.
- He was the first person to say that Earth is spherical and it revolves around the sun.
- He gave the value of π as 3.1416, claiming, for the first time, that it was an approximation. (He gave it in the form that the approximate circumference of a circle of diameter 20000 is 62832.)
- He also wrote a text book for astronomical calculations, Aryabhatasiddhanta. Even today, this data is used in preparing Hindu calendars (Panchangs).
- In recognition to his contributions to astronomy and mathematics, India's first satellite was named Aryabhata.



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Assignment No. 10
Data Handling

1. The following data gives the number of children in 40 families:

1, 2, 6, 5, 1, 5, 1, 3, 2, 6, 2, 3, 4, 2, 0, 4, 4, 3, 2, 2, 0, 0, 1, 2, 2, 4, 3, 2, 1, 0, 5, 1, 2, 4, 3, 4, 1, 6, 2, 2

Represent it in the form of a frequency distribution.

2. In a village five persons sold the following number of fruit baskets in a particular season:

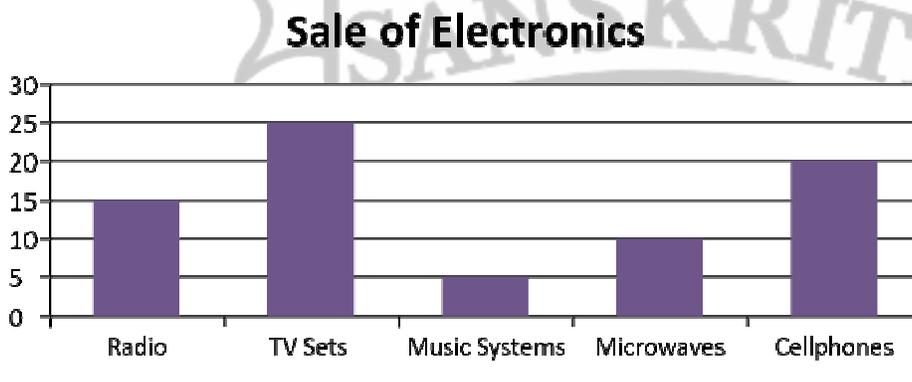
Here 1  represents 100 baskets.

NAME	NUMBER OF BASKETS
Salma	
Reeta	
Juhi	
Anika	
Neha	

Now answer the following questions:

- Who sold the maximum number of baskets?
- What is the difference between the number of baskets of Salma and baskets of Neha?
- What amount did Reeta get if she sold each basket for Rs300

3. Read the bar graph and answer the following questions:



- What information is given in the bar graph?
- Which is the highest selling electronic?
- What is the difference between the highest and the lowest selling electronic?

4. Draw the bar graphs for the following data using appropriate scale:

a.

Section	6A	6B	6C	6D	6E
No. of students	22	26	19	33	25

b.

Class	VI	VII	VIII	IX	X
No. of absentees	5	8	0	3	9

c.

Transport	Car	Bike	Bus	Train	By Air
No. of people	750	270	520	410	900

5. The female literacy rate in 5 states is given below. Represent the data with the help of a bar graph:

State	Kerala	Madhya Pradesh	Bihar	Chandigarh	Himachal
Female literacy (in %)	87	50	33	76	68

Which state is leading in programs for encouraging education of the girls?

6. The following data represents the different modes of transport used by the children of a locality to reach their school.

Mode of transport	Car	Bus	Bicycle	Walk	Rickshaw
Number of children	2	7	17	11	10

Represent the given data using Bar graph and answer the following questions:

- Which mode of transport is used by maximum number of students?
- How many children of the locality do not use bus or car for going to school?

Web Resources:

Let's learn how to draw Bar graphs with

- <http://goo.gl/WQIL4X>

Assignment No.11
Ratio and proportion

1. Find the ratio of:
 - a. 75 paise to Re 1.
 - b. 250 ml to 2 litres.
2. Is the proportion true?
 - a. 500 ml : 2 litres :: Rs 5 : Rs 20.
 - b. 6 min : 25 sec :: 15 cm : 80 mm.
3. Are 30, 40, 45 and 60 in proportion?
4. The sum of the angles of a triangle is 180 degrees. The angles of the triangle are in the ratio 1:2:3.
 - a. Find the measure of each angle.
 - b. Classify the triangle on the basis of angles.
5. 25 oranges are shared by 10 persons. How many oranges are shared by 2 persons?
6. A car travels 90 km in 2 hours and 30 minutes.
 - a. How much time is required to cover 30 km with the same speed?
 - b. Find the distance covered in 2 hours with the same speed.
7. Which of the following pairs of ratios are equivalent?
 - a. 4:12 and 2:6
 - b. 10:33 and 18:44
 - c. 9:12 and 21:28
8. A man earns Rs 7500 a year and spends Rs 6300 a year. Find the ratio of
 - a. his income to his expenditure
 - b. his saving to his income
9. Divide:
 - a. Rs84 in the ratio 5:7
 - b. 450g in the ratio 5:4
10. Vivek's recipe for fruit punch requires 5 parts of water and 2 parts of punch mix. Set up a proportion and find out how much water did he need for 8 cups of punch mix.

Web Resources: Interesting videos to learn the concepts of Ratio and Proportion

- <http://goo.gl/s1R9lm>
- <http://goo.gl/WfshSs>

Optional Enrichment

1. The ratio of speeds of two vehicles is 2 : 3. If the first vehicle covers 50 km in 3 hours, what distance would the second vehicle cover in two hours?
2. The ratio of income to expenditure of Mr. Natrajan is 7 : 5. If he saves Rs 2000 a month, what could be his income?
3. The ratio of the length to breadth of a lawn is 3 : 5. It costs Rs 3200 to fence it at the rate of Rs 2 per metre. What would be the cost of developing the lawn at the rate of Rs 10 per square metre?
4. At 10 am, a two metre high pole gives a shadow of 2m 60cm. A tall tree in the same street at the same time gives a shadow of length 15.6m. What is the height of the tree?
5. The length and breadth of a rectangular field are in the ratio 2:3. If its perimeter is 150m, then what is the area of the field?

Chocolate Calculator Cake (Serves 15)**Ingredients:**

50g margarine
 125g soft brown sugar
 150g self-raising flour
 1.25ml (1/4 tsp) bicarbonate of soda
 1 egg
 2 ripe bananas
 2.5ml (1/2 tsp) vanilla essence
 100g Cadbury Dairy Milk chocolate
 40-60ml (2-3 Tbs) milk

Filling and icing:

1 large Cadbury Flake
 1 pkt dessert topping mix
 125ml (1/4 pt) cold milk
 60ml (3 Tbs) Cadbury Drinking Chocolate
 1 large packet Cadbury Buttons (milk chocolate)

Questions about the Calculator Cake

1. How many grams of flour would be in each slice of cake?
2. What fraction of an egg would be in each slice?
3. The recipe says to use between 40 and 60ml of milk. How much would you need to use to make sure that each slice contained 4ml of milk?
4. If 2.5ml is equivalent to $\frac{1}{2}$ a teaspoon, what is the ratio of ml to tsp in its simplest form?
5. If 125ml is about $\frac{1}{4}$ of a pint, how many ml are there in a pint?

6. How much drinking chocolate would be in each slice?
7. This recipe is for a cake that serves 15 people. How many bananas would you need to use for a cake that serves 30 people?
8. How much bicarbonate of soda would you need to use?
9. How much vanilla essence would you need to use?
10. If you wanted to make a Calculator Cake to serve 60 people, how many eggs would you need?
11. How much margarine would you need to use?
12. How much brown sugar would you need?

An interesting fact-A Strange Prime Number

The Prime number 73,939,133 has a very strange property. If you keep removing a digit from the right hand end of the number, each of the remaining numbers is also prime. It's the largest number known with this property. Take a look: 73,939,133 and 73,93,913 and 7,39,391 and 73,939 and 7,393 and 739 and 73 and 7 are all prime: (Thanks to Toby Howard)

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Assignment No.12
Practical Geometry

1. Draw the following angles using protractor and bisect them:
 - a. 78°
 - b. 136°
 - c. 94°
2. Construct the following angles using compass and ruler:
 - a. 150°
 - b. 75°
 - c. 105°
3. Construct the following angles and their angle bisectors using compass and ruler:
 - a. 60°
 - b. 30°
4. Construct a perpendicular to a line from a point outside it using a compass and a ruler.
5. Draw a circle of radius 4 cm. Draw any two of its chords. Construct the perpendicular bisectors of these chords. Where do they meet?

Web Resources: Watch step by step constructions on

- <http://goo.gl/R6rsgX>

ENRICHMENT TIME

1) Let A, B be the centres of two circles of equal radii. Draw them so that each one of them passes through the centre of the other. Let them intersect at C and D.

Examine whether AB and CD are at right angles.

2) Construct an angle of 120° with vertex O. Take a point A on one of its arms and B on another such that $OA = OB$. Draw the perpendicular bisectors OA and OB.

Let them meet at P. Is $PA = PB$?

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Fun corner -Some Calculator Tricks

Pocket and desk calculators are not only useful; they also can be used to surprise and entertain yourself and your friends. Here is a choice selection of some of the calculator amusement.

- a. Select any number key (other than 0) and press it three times. Divide the number on display by 3, and then divide the result by the number on the key you first punched. The result? 37.
- a. Put 1443 on display. Ask someone to tell you her age. (She must be older than 9). Multiply 1443 by her age, then multiply by 7. The computer will “stutter” her age.
- b. When certain numbers in the readout are viewed upside down, they make words. Here are two of such tricks. In each case, after you do the math, turn your calculator around to read what it says.
 - i. Say ‘hi’ to the machine. Then divide 6.1872 by 8.
 - ii. What did Santa Claus say when Rudolf showed him one of these stunts?

Multiply 0.06734 by 6.

RAMANUJAN – Indian Mathematician

- He was born on 22nd of December 1887 in a small village of Tanjore district, Madras. He failed in English in Intermediate, so his formal studies were stopped but his self-study of mathematics continued.
- He sent a set of 120 theorems to Professor Hardy of Cambridge. As a result he invited Ramanujan to England.
- He used to write his ideas and results on loose sheets. His three filled notebooks are now famous as *Ramanujan's Frayed Notebooks*.
- Ramanujan showed that any big number can be written as sum of not more than four prime numbers.
- He showed that how to divide the number into two or more squares or cubes.
- When Mr Littlewood came to see Ramanujan in taxi number 1729, Ramanujan said that 1729 is the smallest number which can be written in the form of sum of cubes of two numbers in two ways, i.e. $1729 = 9^3 + 10^3 = 1^3 + 12^3$ since then the number 1729 is called Ramanujan's number.

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Math is Fun

Activity Sheets



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Activity 1:

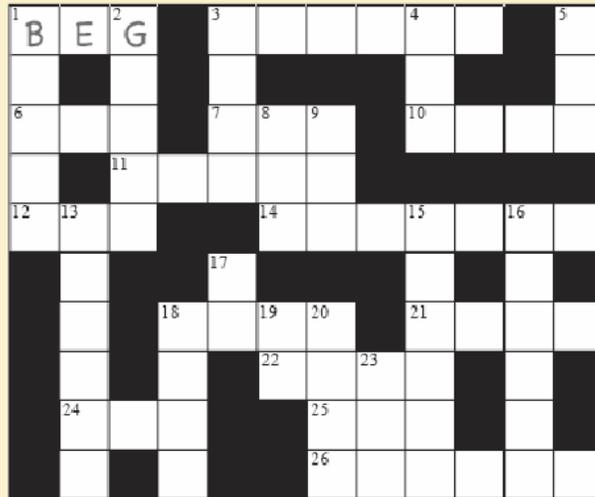
Cross “Calcuword” Puzzle



This “Calcuword” puzzle is different from any crossword puzzle you've ever done. To discover which words to fill in, you must solve the equations below with your calculator. Turn the calculator upside down after you solve each equation and read the word that appears in the answer screen. If a word is not familiar to you, look it up in a dictionary. The first problem has been done for you.

ACROSS

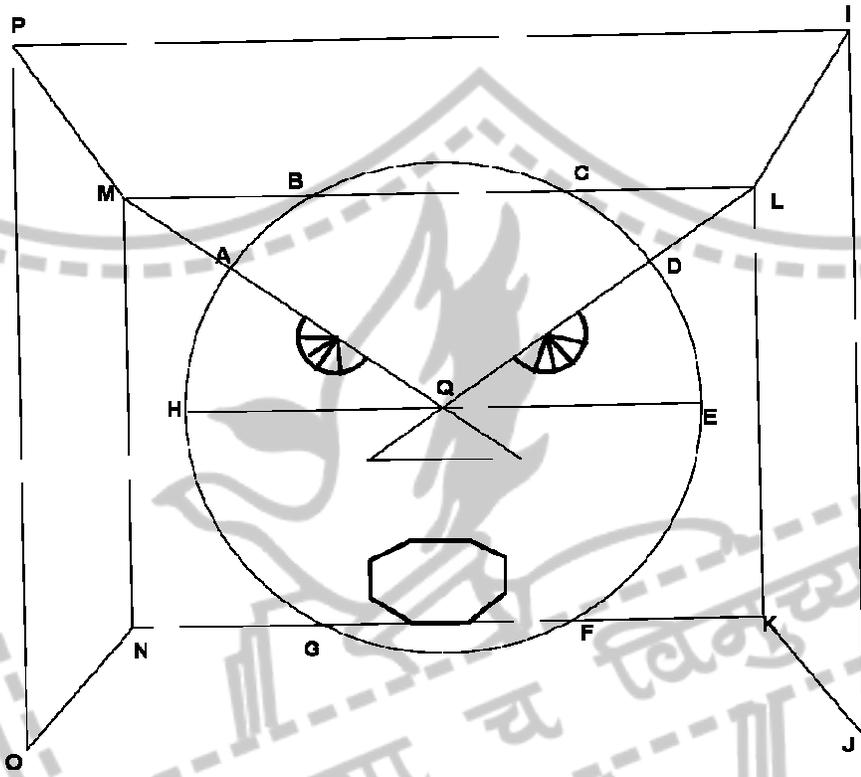
- | | | |
|---|----------------------------|--------------------------|
| 1) $22 \times 29 = 638 \rightarrow BE9$ | 11) $12,335 + 19,403 =$ | 22) $70.5 + 100 =$ |
| 3) $96 \times 3,923 =$ | 12) $15 \times 23 =$ | 24) $.21 + .16 =$ |
| 6) $31.5 + 50 =$ | 14) $756,327.4 \times 5 =$ | 25) $1 - .94 =$ |
| 7) $692 - 85 =$ | 18) $8,100 - 995 =$ | 26) $20 \times 27,679 =$ |
| 10) $2,568 + 3,095 =$ | 21) $3 \times .269 =$ | |



DOWN

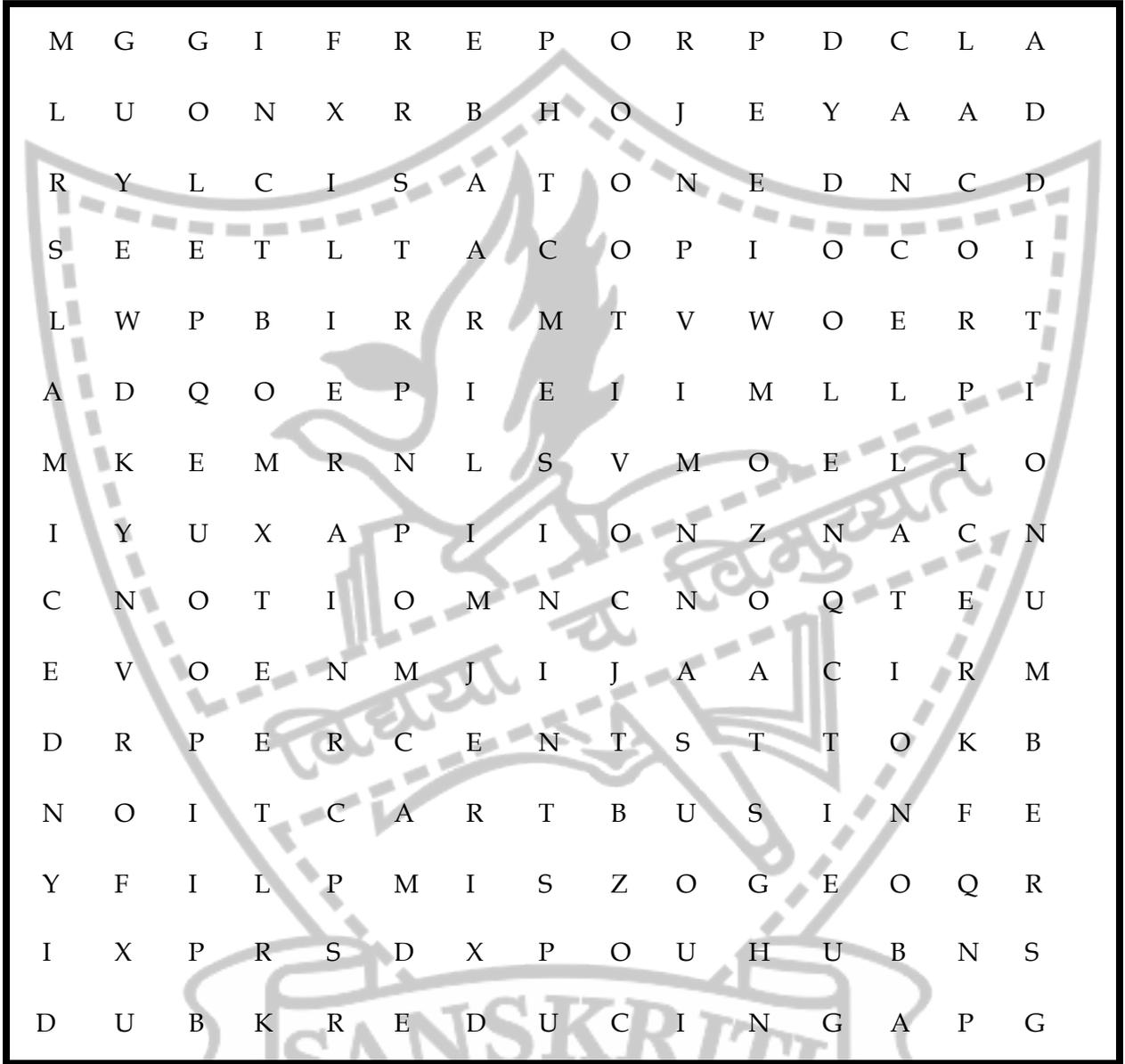
- | | | |
|------------------------|--------------------------|----------------------|
| 1) $2 \times 27,689 =$ | 8) $457 + 253 =$ | 17) $3 + 5 =$ |
| 2) $76 \times 501 =$ | 9) $4,032 \div 12 =$ | 18) $3,941 - 896 =$ |
| 3) $12,969 - 5,231 =$ | 13) $12 \times 31,567 =$ | 19) $32 + 19 =$ |
| 4) $161 + 156 =$ | 15) $4,506,849 + 9 =$ | 20) $.222 + .385 =$ |
| 5) $611 - 97 =$ | 16) $89,652 + 484,165 =$ | 23) $269 \times 3 =$ |

Activity 3: FIGURE IT OUT



Look at the given figure and answer the following questions:

1. Number of radii.....
2. Number of chords.....
3. Name an arc.....
4. Name the longest chord.....
5. Sum of the angles in the nose of the figure=
6. Shade a major segment
7. Colour two minor segments as red.
8. Name four collinear points.

Activity 4: FRACTION WORD SEARCH

ADDITION
CONVERTING
DIVISION
MIXED
NUMERATOR
RECIPROCAL

CANCELLATION
DECIMALS
FRACTION
MULTIPLICATION
PERCENTS
SUBTRACTION

COMMON
DENOMINATOR
IMPROPER
NUMBERS
PROPER
SIMPLIFY

Activity 5:

FLOW CHART SECRET CODE

A flow chart describes a step-by-step process. If you follow the steps in the flow charts below, your answers will spell out the answer to the riddle below in Mike's Math Club code.
I've completed one flow chart to get you started.
Good luck!

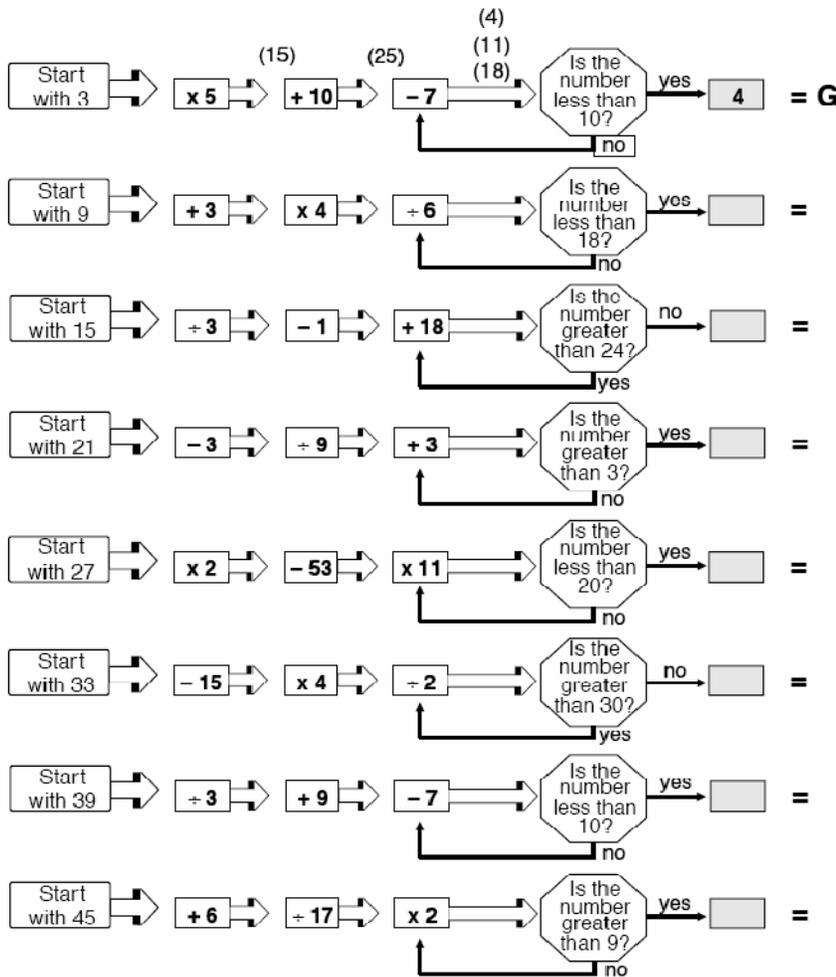


Mike's Math Club
Secret Coded Letter Values

0 = '	9 = N	18 = D
1 = F	10 = I	19 = B
2 = M	11 = L	20 = P
3 = H	12 = R	21 = W
4 = G	13 = X	22 = T
5 = O	14 = C	23 = Q
6 = A	15 = J	24 = Z
7 = S	16 = Y	25 = U
8 = E	17 = K	26 = V

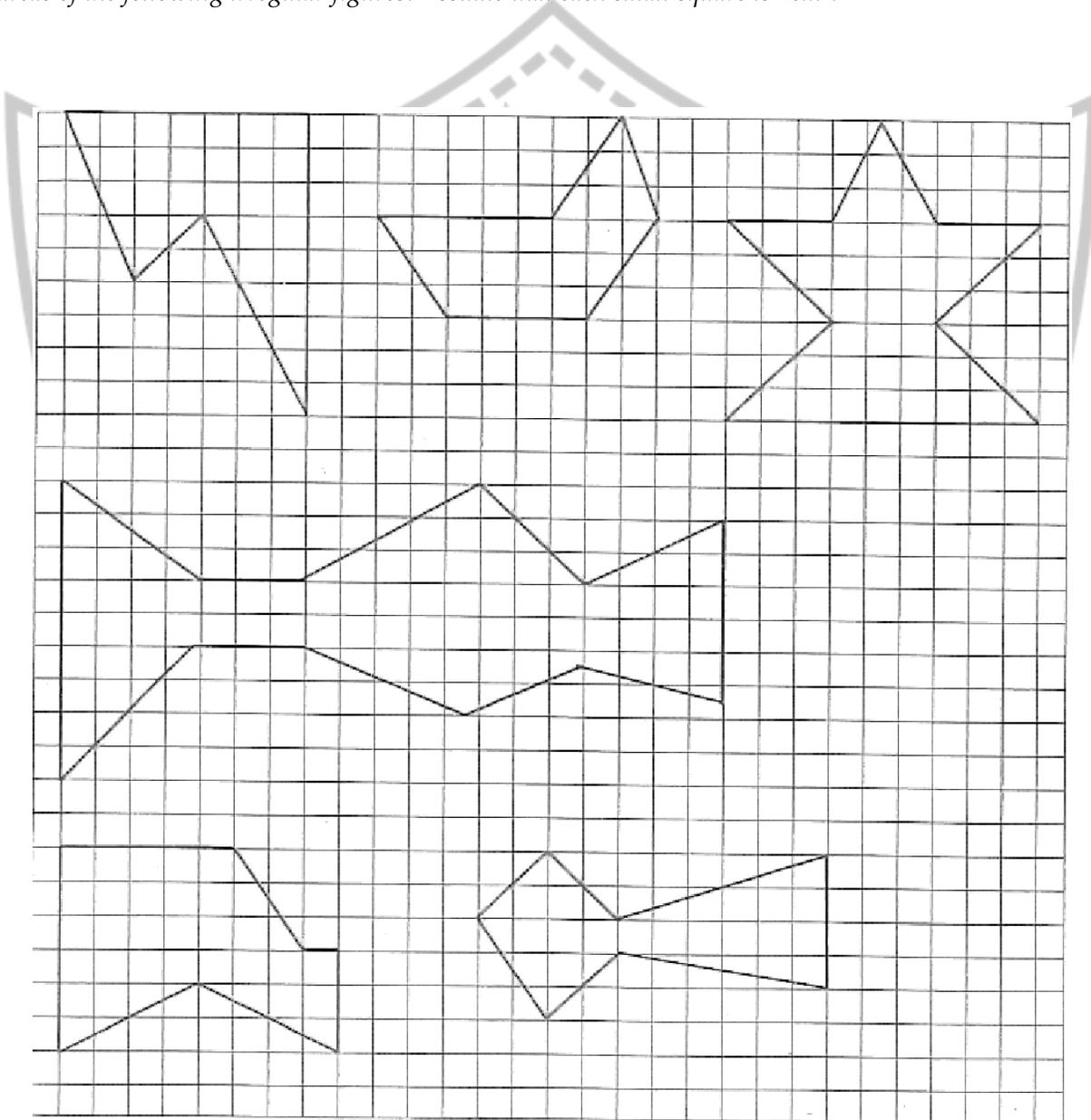
What does every person in the world do at exactly the same time?

When you answer the question in the octagon, follow the arrows until your answer points you to the gray box. (You might need to repeat the last step more than once.)



Activity 6: AREA OF IRREGULAR POLYGONS

Find the areas of the following irregular figures. Assume that each small square is 1cm^2 .



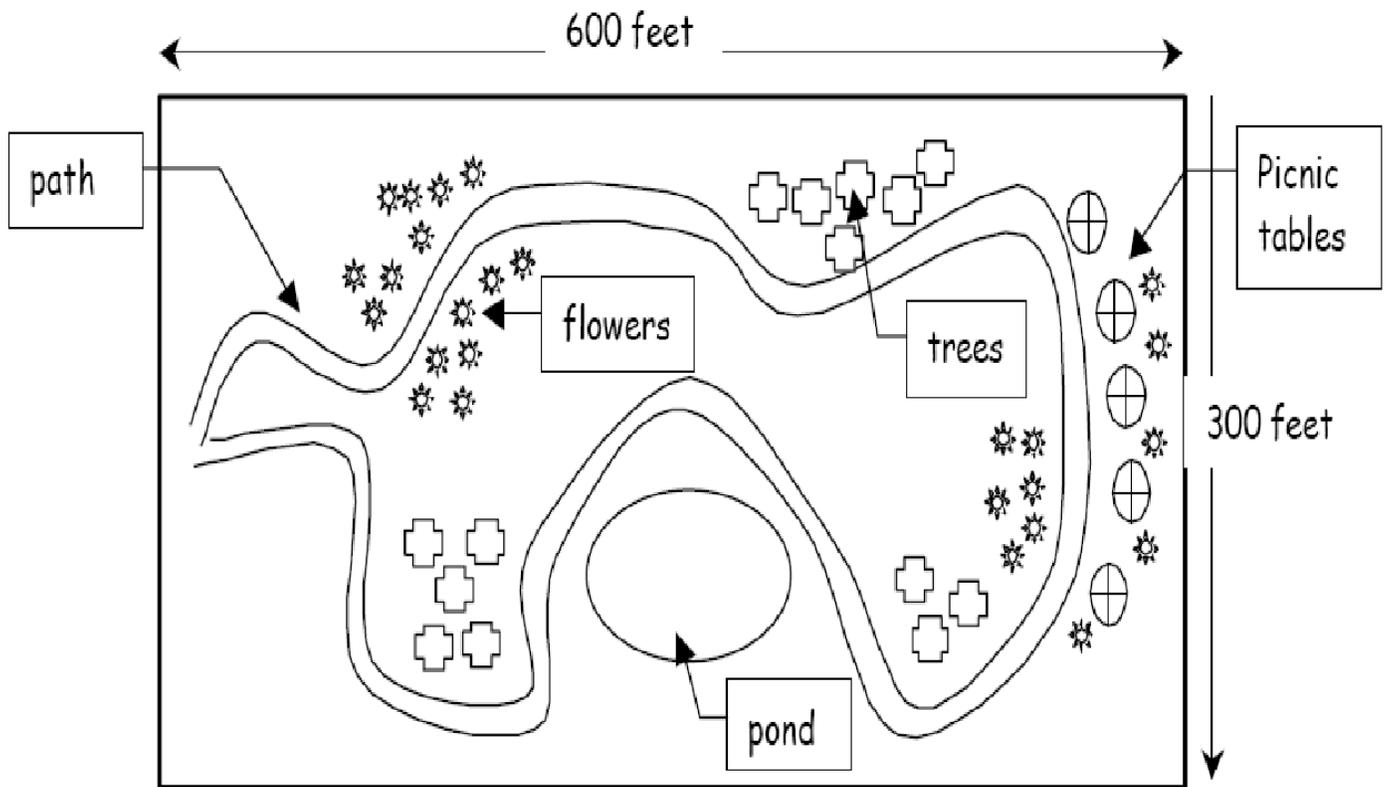
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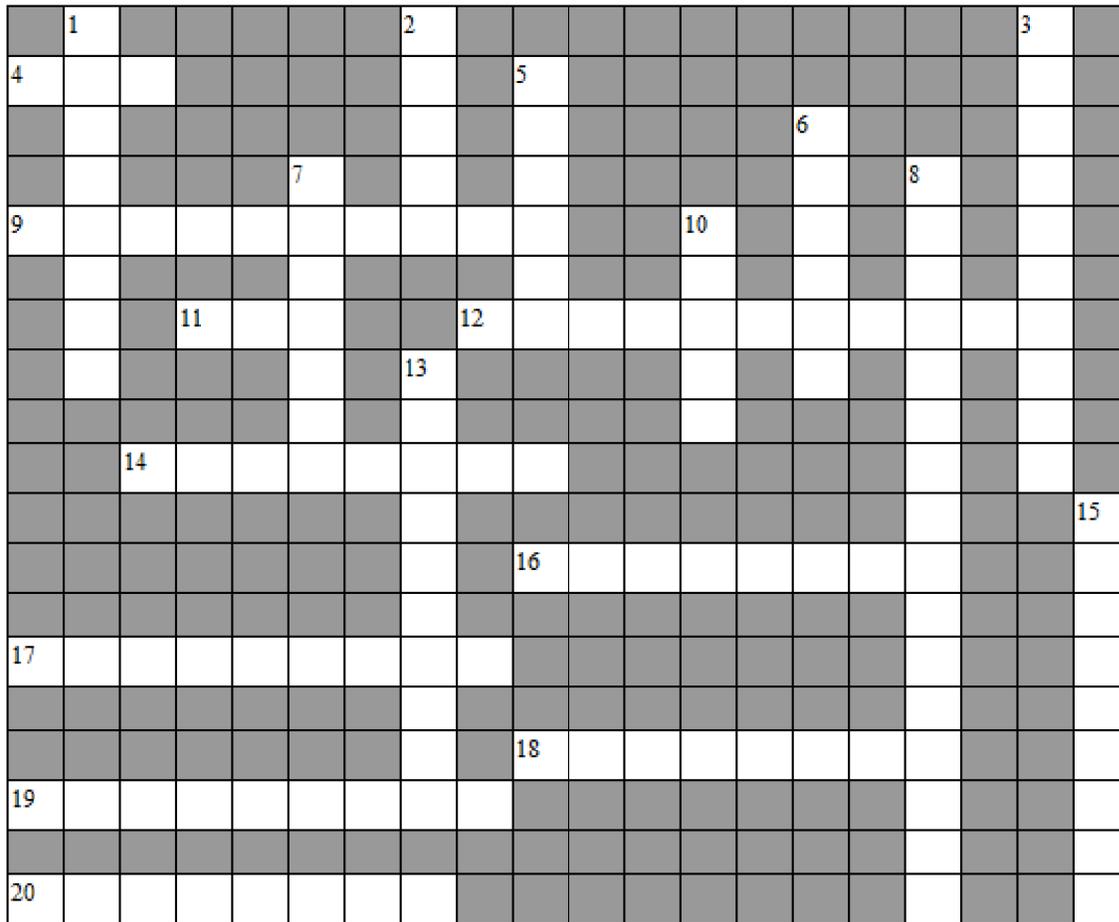
Activity 7: THE GARDEN

The garden in the picture below is open every day from 10:00am to 5:00 p.m. It costs Rs 2.00 per visitor to walk through the garden.

Which amounts are variables? Write a "V" next to them.

1. The area covered by the garden. _____
2. The number of people who visit the garden each day. _____
3. The amount of sunlight that falls on the garden each day. _____
4. The number of hours the garden is open each day. _____
5. The amount of water in the pond. _____
6. The amount of plant food the gardeners use each week. _____
7. How much money each person pays to visit the garden. _____
8. The length of the path through the garden. _____
9. The number of bees in the garden. _____
10. The amount of rain that falls on the garden each day. _____



Activity 8: MATH**CROSSWORD****ACROSS**

4. answer to an addition problem
9. answer to a subtraction problem
11. 3, 19, 37, and 131 are all __ numbers
12. bottom number of a fraction
14. polygon with five sides
16. straight lines that never cross
17. having the same size and shape
18. shape of a soup can
19. distance around a figure
20. Hindu-Arabic numeral for LXII

DOWN

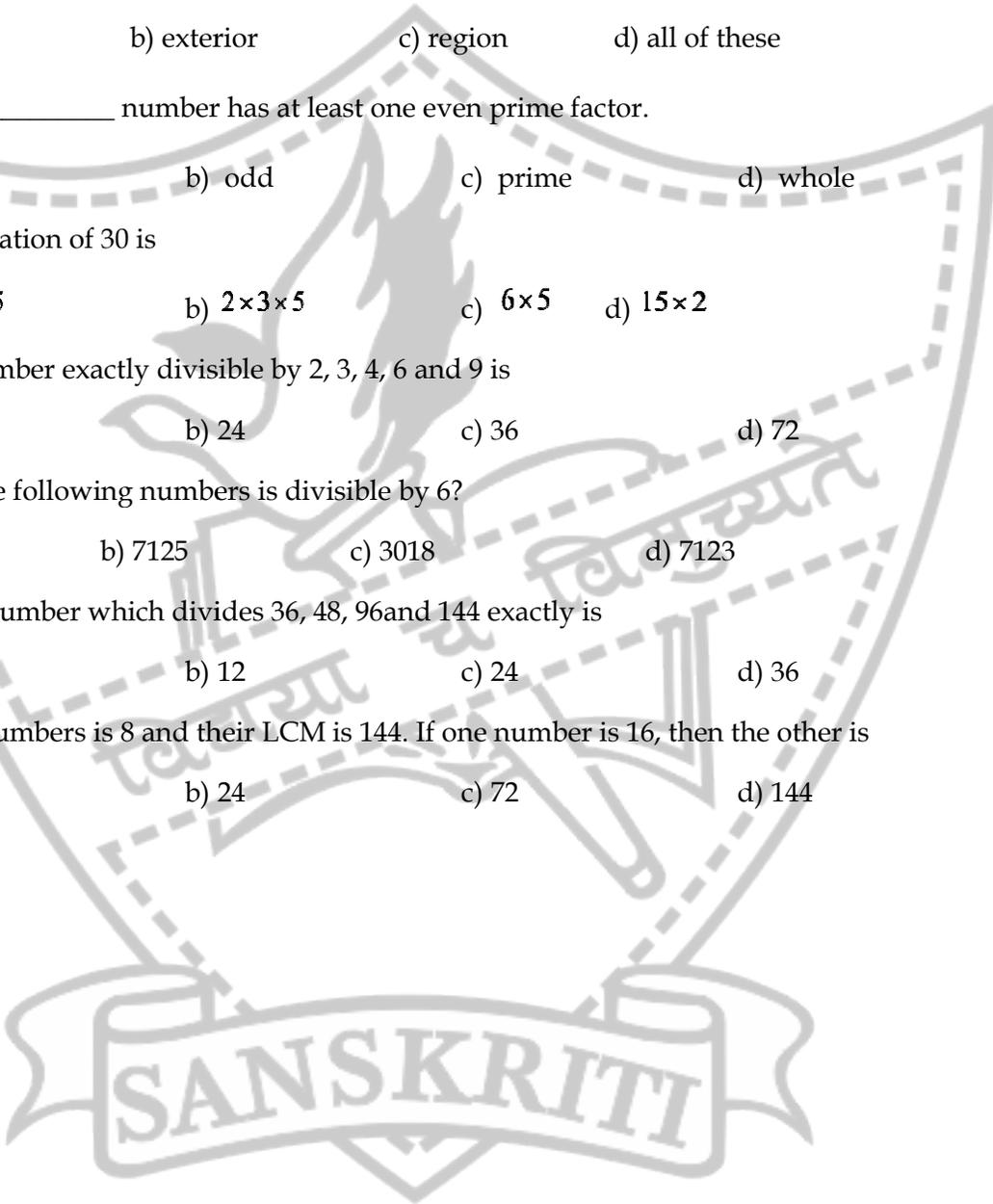
1. answer to a division problem
2. twelve
3. five lines passing through the same point
5. shape of a tennis ball
6. line intersecting the circle at two distinct points
7. answer to a multiplication problem
8. another name for a cuboid
10. nine ___ seven equals 63
13. 90 degree angle
15. top number of a fraction

MULTIPLE CHOICE QUESTIONS (TERM I)

- The product of a number and 109 is 109. The number is.
 - 1
 - 0
 - $\frac{1}{109}$
 - 109
- $8 \times (10 + 9) = (8 \times 10) + (8 \times 9)$ is an example of _____ property.
 - Associative
 - Closure
 - Commutative
 - Distributive
- In the set of whole numbers, 1 is the identity element for
 - Addition
 - Subtraction
 - Multiplication
 - Division
- 205×12 is not the same as
 - $(200 + 5) \times 12$
 - $205 \times (10 + 2)$
 - $(300 - 95) \times 12$
 - $200 + 5 \times 12$
- Which one of the following does not represent the digit 0?
 - $5 \times 0 + 0$
 - $\frac{3-3}{3}$
 - $\frac{2 \times 0}{5}$
 - $\frac{2}{3-3}$
- A fraction equivalent to $\frac{13}{27}$ is
 - $\frac{26}{27}$
 - $\frac{13}{54}$
 - $\frac{39}{54}$
 - $\frac{26}{54}$
- $\frac{12}{25} + \frac{13}{25}$ is:
 - 1
 - $\frac{1}{25}$
 - $\frac{26}{25}$
 - $\frac{26}{25}$
- $\frac{1}{4}$ of 1 kg is
 - 500 g
 - 250 g
 - 750 g
 - 100 g
- Rs 13.09 is equivalent to
 - 1390 p
 - 1309 p
 - 13090 p
 - 130900 p
- 25 litres 7 ml is equal to
 - 25.7litres
 - 25.07litres
 - 25.007litres
 - 25.70litres

11. $12\frac{7}{100}$ can be written as
a) 12.7 b) 12.07 c) 12.70 d) 12.007
12. Sum of three negative integers will be
a) +ve b) -ve c) 0 d) May be + ve or may be -ve
13. $12 - (-18)$ is
a) -6 b) -30 c) 6 d) 30
14. $-28 - (+25)$ is
a) -3 b) +3 c) -63 d) -53
15. $+28 - (+78)$ is
a) 50 b) -50 c) -106 d) 106
16. $|15| + |-15|$ is:
a) 30 b) 0 c) -30 d) 10
17. The additive inverse of -3 is
a) $\frac{1}{3}$ b) $-\frac{1}{3}$ c) 3 d) -3
18. In a given plane, two distinct intersecting lines can intersect at the most at
a) 2 points b) 0 point c) 1 point d) 3 points
19. A triangle having two acute and one obtuse angle is
a) Acute angled b) Obtuse angled c) Right angled d) Zero angled
20. Which of the following represents a natural number?
a) $35 \div 0$ b) $35 \div 35$ c) $0 \div 35$ d) $35 - 35$
21. 6 kg 5 g is equivalent to
a) 6.5 kg b) 6.05 kg c) 6.500 kg d) 6.005 kg
22. A triangle can have _____.
a) 2 acute angles b) 2 obtuse angles c) 2 right angles d) none of these

23. The additive inverse of $| - 5 |$ is _____.
- a) -5 b) 5 c) $1/5$ d) $5+(-5)$
24. The interior together with boundary of a curve is called _____.
- a) interior b) exterior c) region d) all of these
25. Every _____ number has at least one even prime factor.
- a) even b) odd c) prime d) whole
26. Prime factorization of 30 is
- a) $1 \times 2 \times 3 \times 5$ b) $2 \times 3 \times 5$ c) 6×5 d) 15×2
27. The least number exactly divisible by 2, 3, 4, 6 and 9 is
- a) 18 b) 24 c) 36 d) 72
28. Which of the following numbers is divisible by 6?
- a) 5024 b) 7125 c) 3018 d) 7123
29. The greatest number which divides 36, 48, 96 and 144 exactly is
- a) 16 b) 12 c) 24 d) 36
30. HCF of two numbers is 8 and their LCM is 144. If one number is 16, then the other is
- a) 48 b) 24 c) 72 d) 144



SANSKRITI

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MULTIPLE CHOICE QUESTIONS (TERM II)

1. In the word MATHEMATICS, the ratio of the number of vowels to the number of consonants is
 a) 4:11 b) 7:11 c) 4:7 d) 7:4
2. If $4:9 :: x : 18$ is true, then x is
 a) 2 b) 6 c) 8 d) 40.5
3. If 57: a = 51:85 are in proportion, then a is
 a) 95 b) 76 c) 114 d) none of these
4. If Raju cycles 40 kms in 5 hours and Shalini cycles 36 kms in 4 hours, then the ratio of Shalini's speed to Raju's speed is
 a) 10:9 b) 9:10 c) 9:8 d) 8:9
5. The solution of $3m - 3 = 0$ is
 a) 3 b) 1 c) 1 d) 3
6. $3a$ equals
 a) $3 + a$ b) $3 \times a$ c) $a \times a \times a$ d) $3 \div a$
7. The number of terms in $5xy$ is
 a) 3 b) 2 c) 5 d) 1
8. I think of a number x , and subtract 3 from it and then divide by 5. The correct algebraic expression is
 a) $3 - x \div 5$ b) $x - 3 \div 5$ c) $\frac{x-3}{5}$ d) $\frac{x}{5} - 3$
9. The quotient of x by 3 is multiplied by y is
 a) $\frac{3}{xy}$ b) $\frac{x}{3y}$ c) $\frac{xy}{3}$ d) $\frac{y}{3x}$
10. A pen costs Rs 25 and a pencil costs Rs 3. The total cost of m pens and n pencils is
 a) Rs $(25+n)$ b) Rs $(25m+ 3n)$ c) Rs $25m+3n$ d) Rs $25(m+3n)$
11. The value of x in $5x - 3 = 12$ is
 a) -1 b) 20 c) -3 d) 3
12. The perimeter of a rectangle 10 cm long and 25 mm wide is
 a) 35 cm b) 70 cm c) 25 cm d) 35 mm

13. A square is 44 m long. Its perimeter is
a) 1936 m b) 1936 m^2 c) 176 m d) 166 m
14. Area of a square is 100 cm^2 . Its side is
a) 10 cm b) 40 cm c) 25 cm d) 11 cm
15. (Number of zeros in 1 thousand): (Number of zeros in 1 million) = _____ .
a) 1 : 1 b) 1 : 2 c) 2 : 3 d) 4 : 7
16. The brochure said "Watch your mail!" I watched my mail for 5 days less than 5 weeks. For how many days did I watch my mail?
a) 10 b) 25 c) 30 d) 35
17. A quadrilateral having one and only one pair of parallel sides is called
a) a parallelogram b) a kite c) a rhombus d) a trapezium
18. Each angle of an equilateral triangle measures
a) 45° b) 30° c) 60° d) 80°
19. A quadrilateral having two pairs of equal and adjacent sides but unequal opposite sides is called a
a) trapezium b) parallelogram c) kite d) rectangle
20. If a, b, c are in proportion, then
a) $a^2 = bc$ b) $b^2 = ac$ c) $c^2 = ab$ d) none of these
21. Which of the following is regular quadrilateral?
a) A rectangle b) A rhombus c) A square d) A trapezium
22. If $x/5 = 1$, then $x =$
a) 1/5 b) 5 c) (5+1) d) none of these
23. Which of the following values satisfy the equation $x/3 + 5 = 8$
a) 3 b) 6 c) 9 d) 12
24. The angles of a triangle are in the ratio 3:1:2. The measure of the largest angle is
a) 60° b) 30° c) 90° d) 120°
25. The ratio 92:115 in its simplest form is
a) 23:25 b) 18:23 c) 3:5 d) 4:5

26. The cost of 5 bars of soap is Rs.82.50, then the cost of one dozen bars is
a) Rs. 208 b) Rs.192 c) Rs.198 d) Rs.204
27. A room is 5 m 40 cm long and 4 m 50 cm broad. Its area is
a) 23.4 m² b) 24.3m c) 25 m² d) 98.01 m²
28. In the word INTERNATIONAL ratio of vowels to consonants is
a) 8:5 b) 6:7 c) 5:8 d) 7:6
29. Raj starts counting by 2's. If he starts counting at -51, what are the two missing numbers?
-51, -49, __, -45, __, -41
a) -47, -43 b) -43, -47 c) 47, 43 d) -47, -45
30. If $5 : 4 :: 35 : x$ then value of x is
a) 42 b) 32 c) 28 d) none of these
31. A line which bisects a given segment at 90° is
a) \perp bisector b) bisector c) any of a and b d) none
32. The expression 3 times x subtracted from 25 is written as
a) $3x + 25$ b) $3x - 25$ c) $25 - 3x$ d) $25 - 3/x$
33. The area of a field is $40m^2$. If the length of the field is 16m, its width will be
a) 25m b) 2.5m c) 25cm d) 2.5cm
34. Which of the following does not have six faces?
a) Cuboid b) Cube c) Cone d) A Die
35. Which of the following has one vertex?
a) Cuboid b) Cube c) Cone d) Cylinder

Question Bank 1

- Q1. Using suitable rearrangement, solve:
- $25 \times 125 \times 80$
 - $123 + 345 + 477 + 655$
- Q2. Find the value by suitable rearrangement:
- $23 + 546 + 377 + 154$
 - $4 \times 168 \times 250$
- Q3. Using distributive property, find the value of:
- 785×94
 - $968 \times 73 + 968 \times 27$
- Q4. Simplify:
- $(-25) - [14 - 18]$
 - $11 + (-12) - (-13)$
- Q5. Pooja bought 16 roses and 14 lilies. Cost of each flower is Rs 15. How much money did she spend in all on the flowers? (Use suitable property)
- Q6. A box has 5 kg 400g sweets in it. How many jars of capacity 20g each can be filled? Is it healthy to eat sweets?
- Q7. Draw a circle of diameter 7 cm and show its major and minor segments with different colours.
- Q8. Arrange in descending order:
 $-12, -15, 14, 0, 2, -5, 8, 9$
- Q9. A place is 48 m above the sea level and another is 37 m below the sea level. What is the difference of level between the two places?
- Q10. 59 chairs and 30 blackboards were purchased for a school. If each chair costs Rs 170 and a blackboard costs Rs 59, find the total amount of the bill. (Use Distributive Property)
- Q11. Using suitable property of multiplication, find the value of: (**also name the property**)
- 375×96
 - $(14 \times 2 \times 64) + (7 \times 36 \times 4)$
- Q12. A shopkeeper has an order of 15000 kg wheat to supply. He has 6 fields and each field produces 2250 kg.
- How much wheat does he need to buy more to fulfill the supply?
 - He packs 600 kg in one box. How many such boxes are required to pack the whole supply?
- Q13. Draw a circle of diameter 6.8 cm. In the circle,
- Mark the centre.
 - Draw a chord.
 - Show the minor and major segments with different colours.
 - Draw a secant of the circle.
- Q14. Fill in the blanks:
- _____ is the multiplicative identity of whole numbers.
 - Three or more points lying on a line are called _____ points.
 - $(a + b) + c = a + (b + c)$ is the _____ property of addition for whole numbers.
 - _____ is the additive inverse of -14.

- Q15. Subtract the sum of $3\frac{5}{9}$ and $3\frac{1}{3}$ from the sum of $5\frac{5}{6}$ and $4\frac{1}{9}$.
- Q16. A film show lasted for $3\frac{1}{3}$ hours. Out of this time $1\frac{3}{4}$ hour was spent on advertisements. What was the actual duration of the film?
- Q17. Express the following fractions as decimals:

a) $2\frac{1}{10}$

b) $1\frac{27}{100}$

Q18. Convert each of the following decimals into a fraction in its simplest form:

a) 0.625

b) 0.06

Q19. Ramesh purchased a book worth Rs 146.75 from a bookseller and gave him a 500 rupee note. How much balance did he get back?

Q20. A car travelled 60 km north of Patna and then 90 km to the south of it. How far from Patna was the car finally? Is it a good idea to travel by individual car or a public transport?

Q21. Solve:

a) $[-13 - (-17)] + [-22 - (-40)]$

b) $37 - [11 - (-30) + 4]$

Q22. Find the value of:

a) $(-13) + (-8)$ b) $(-47) + (36)$

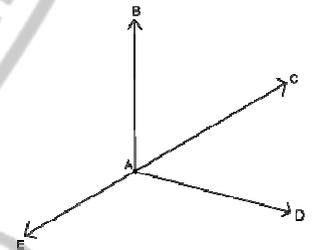
Q23. There are 250 flowers in a garden. The garden has roses, lilies and orchids. Half of the flowers in the garden are roses. The lilies $\frac{1}{5}$ th are of the number of roses and the remaining are orchids. How many orchids are there?

Q24. Subtract the sum of -34 and -15 from 19 .

Q25. In the given figure:

a) Name four rays.

b) Name the line.



Q26. The sum of two integers is 78 and one of them is -14 . Find the other.

Q27. Write all the integers between -27 and -32 . Which is the largest of these?

Q28. Find the missing numbers in the blanks and state the property involved in each case:

(a) $(67 + 42) + 38 = 67 + (42 + \underline{\quad})$

(b) $2 \times 63 = \underline{\quad} \times 2$

(c) $437 + \underline{\quad} = 437$

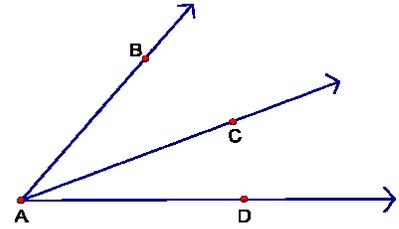
Q29. Rohit buys 552 badminton rackets and 448 cricket bats. If the cost of a badminton racket and a cricket bat is Rs 140 each, find how much total money does he spend? **(Use Distributive Property)**

Q30. Simplify : $[-27 - (-54)] + [-43 + (-52)]$

Q31. Study the given figure and answer the following:

(a) Name the vertex of $\angle BAC$.

(b) Find how many angles are formed at the vertex A and name them?



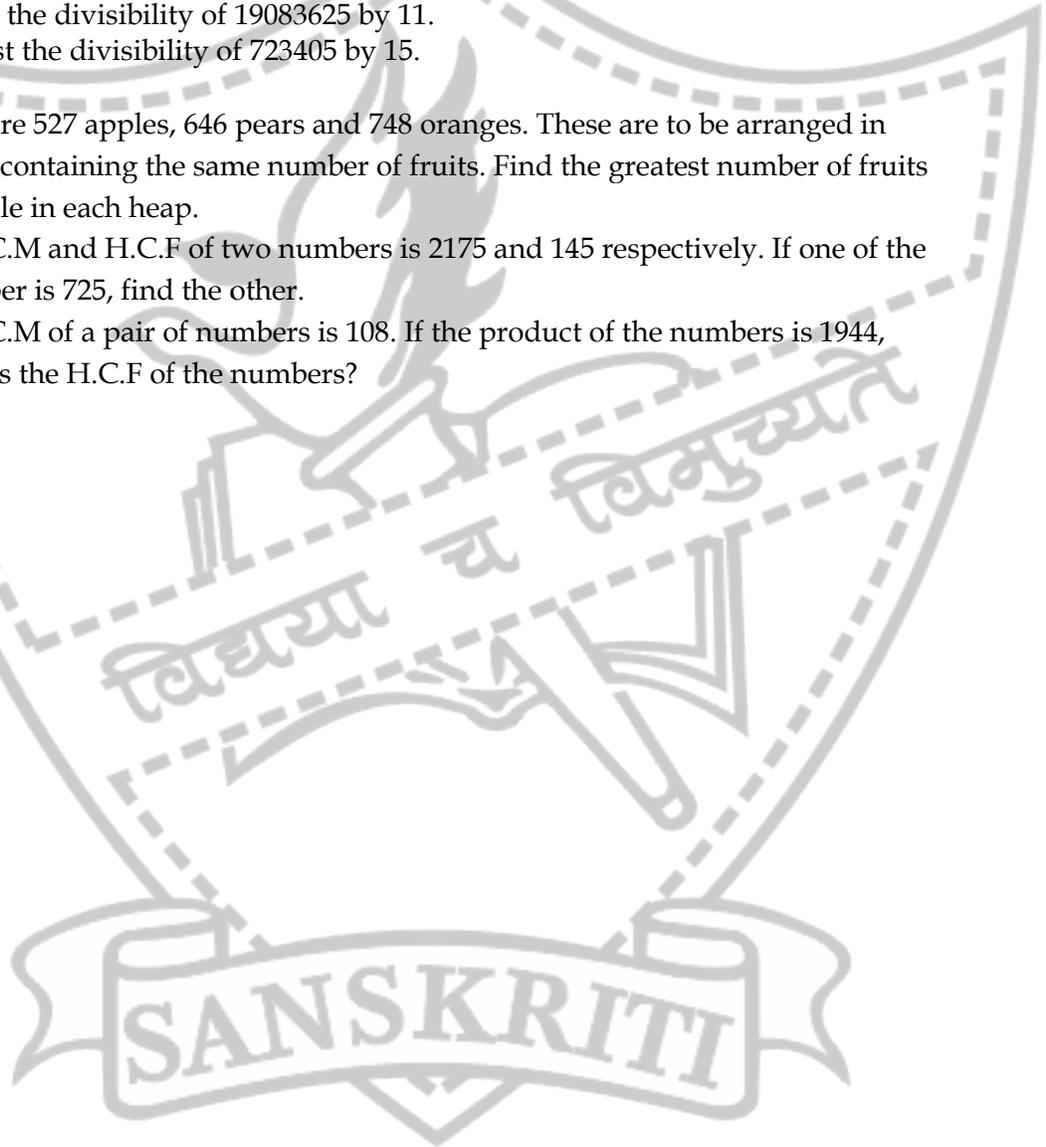
Q32. (a) Test the divisibility of 19083625 by 11.

(b) Test the divisibility of 723405 by 15.

Q33. There are 527 apples, 646 pears and 748 oranges. These are to be arranged in heaps containing the same number of fruits. Find the greatest number of fruits possible in each heap.

Q34. The L.C.M and H.C.F of two numbers is 2175 and 145 respectively. If one of the number is 725, find the other.

Q35. The L.C.M of a pair of numbers is 108. If the product of the numbers is 1944, what is the H.C.F of the numbers?



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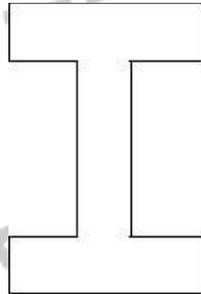
Question Bank 2

Q1. Find the perimeter and area of the given figure:

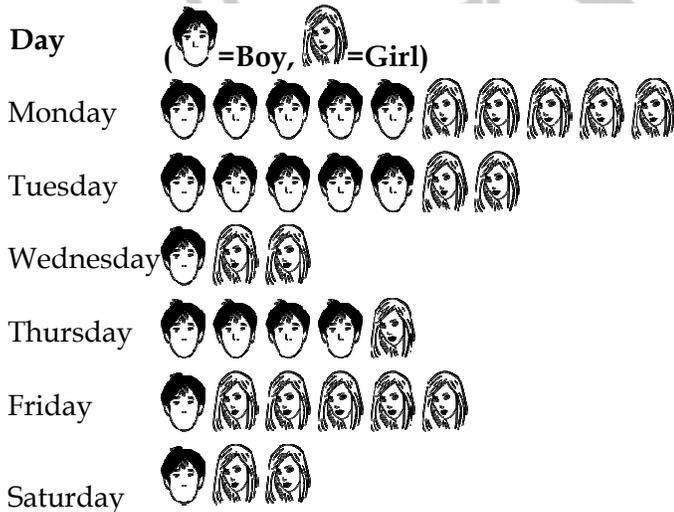
Q2. Two equal sides of an isosceles triangle are 8 cm each. The perimeter of the triangle is 40 cm. Find the third side.

Q3. Priya runs around a square park of side 60m. Satish runs around a rectangular park with length 50m and breadth 45m. Who covers more distance and by how much?

Q4. A dice was thrown 30 times and the following outcomes were noted:
 2, 1, 2, 4, 6, 1, 2, 3, 6, 5, 4, 4, 3, 1, 1, 3, 1, 1, 5, 6, 6, 2, 2, 3, 4, 2, 5, 5, 6, 4
 Prepare a frequency table



Q5. The following pictograph shows the number of students who were absent in class during last week.



From this we see that

- (a) The maximum number of students were absent on _____
- (b) The total number of boy absentees in that week was _____
- (c) The total number of girl absentees in that week was _____

Q6. Use the given data to draw a pictograph.

At a biscuit baking competition, Elsa baked 13 batches of biscuits, Hanna baked 1, Ivan baked 5, Jackie baked 10, and Peter baked 11.

Q7. Poppy read 3 comic strips on Tuesday, 8 comic strips on Wednesday, 7 comic strips on Thursday, 7 comic strips on Friday, and 9 comic strips on Saturday. Represent this data using a bar graph.

Q8. A transport company charges Rs 175 to carry 25 tonnes of weight. What will it charge to carry 35 tonnes?

Q9. Find the ratio in the simplest form:

- 24 minutes to an hour.
- 3 m 5 cm to 90 cm.

Q10. The boys and girls in a school are in the ratio 5 :9. If the total strength of the school is 448. Find the number of girls. What does it tell you about the people of the place where the school is? Do they want to educate their daughters as they want to educate their sons?

Q11. Is the proportion true?

- $30 \text{ cm} : 18 \text{ m} = 20 \text{ hours} : 20 \text{ minutes}$.
- $\text{Rs}20 : 18 \text{ paise} = 6 \text{ litres} : 5 \text{ ml}$.

Q12. A designer uses 15 m cloth to make 25 dresses. How much cloth does he use to make 60 dresses?

Q13. Write an expression for the total of k and 99

Q14. Solve for x in each problem.

- $x + 9 = 16$
- $x / 2 = 1$
- $5 + x = 10$
- $x + 4 = 8$

Q15. Find x :

- $x + 10 = 20$
- $x / 4 = 1$

Q16. Write the algebraic expression for :

- Sum of x and the quotient of y by 5.
- Puran's age 5 times three years hence if he is y years now.

Q17. Solve:

- $20 + 4^x = 32$
- $8^x - 56 = -40$

Q18. The area of a rectangle is 540 sq cm and its length is 36 cm. Find its width and perimeter.

Q19. Draw an angle of 145° using protractor and bisect it.

Q20. Which words describe this shape? Choose all that apply.



Parallelogram

quadrilateral

rhombus

square

Q21. Solve for s .

$$s + 9 = 93$$

Q22. A wire of length 120cm is bent to form a regular hexagon. What is the length of each of its sides?

Q23. Divide 6kg 600g in the ratio 5 : 6.

Q24. Meera is x years old. Express the following in algebraic form:

- Four times Meera's age four years ago.
- The present age of Meera's friend, if her friend is two years less than thrice of Meera's age.

Q25. Write an expression for 8 less than q .

Q26. A geography class recorded the number of neighbouring countries each country has. Use the data in the table to construct a bar graph.

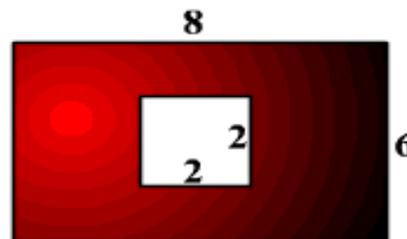
Neighbouring countries	
Country	Number of neighbouring countries
Niger	7
Turkey	8
Germany	9

Q27. Some friends compared the sizes of their sticker collections. Use the data in the table to construct bar graph.

Sticker collections	
Name	Number of stickers
Denise	8
Tamir	9
Darnay	10
Carrie	6
Karen	10
Rowan	7

Q28. Draw a circle with centre O and radius 3.5cm . Construct a perpendicular bisector of its diameter. Does it pass through O ?

Q29. What is the area of the shaded region?



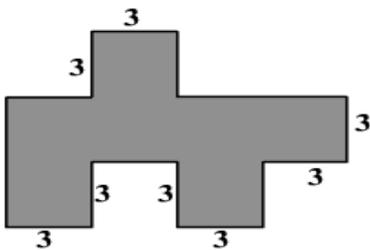
Q30. In a class there are 45 students. Out of which, 24 are boys and rest are girls. Find the ratio in the simplest form:

- girls to boys
- boys to all students

Q31. Complete the table:

	No. of faces	No. of vertices	No. of edges
Cylinder	(a) _____	0	(b) _____
Square pyramid	5	(c) _____	(d) _____
Cone	(e) _____	1	(f) _____

Q32. Find the total area of the shaded region. (In the figure, all angles are right angles.)

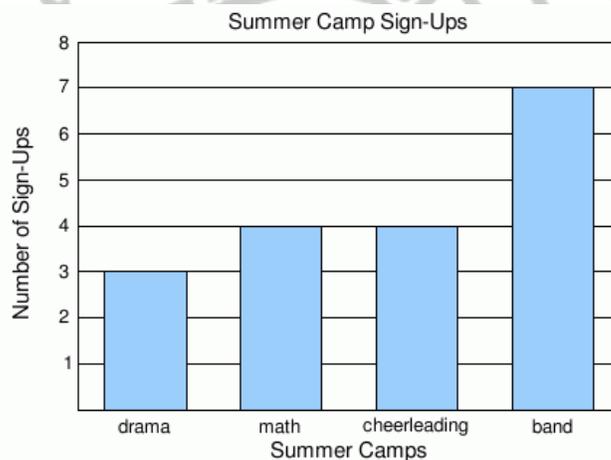


Q33. The cost of 5 kg of rice is Rs 36.25. What will be the cost of 4 kg of rice?

Q34. The perimeter of a rectangle is 42 inches. If the width is 8 inches, what is the length?

Q35. How many envelopes can be made out of a sheet of paper 324 cm by 172 cm, if each envelope requires a piece of paper of size 18 cm by 12 cm?

Q36. Answer questions regarding the graphs.



1. What is the title of the graph? 2. Which summer camps have the same number of sign-ups

Q37. Construct:

a. An angle of 45° using a compass and a ruler.

b. A perpendicular to a line through a point on it using a compass and a ruler.

Q38. A path is to be paved with square tiles. The length of the path is 7.5m and its breadth is 2.5m.

Find the number of tiles required to pave the path if side of the square tile is 25cm.

Q39. Construct using a compass and a ruler:

- An angle of 75° .
- A perpendicular to a line from a point outside it.
- A perpendicular to a line segment of length 6 cm such that it bisects the segment as well.

Q40. Name the shape :

- A parallelogram with all four sides equal.
- A quadrilateral with only one pair of opposite sides parallel.
- A 3D shape with no vertices and no edges
- A quadrilateral with two pairs of adjacent sides equal.

Q41. Shalu is 3yrs less than 5 times Raju's age. Find Shalu's age if Raju is 8 yrs old.

Q42. Write the following algebraic expressions using signs and symbols

- Sum of numbers a and b subtracted from product of x and y.
- 15 less than quotient of x by 3.

Q43. The sides of a triangular field are 20cm , 15cm and 12cm. Find the total distance travelled by the boy in taking 2 complete rounds of this field.

Q44. Find the cost of fencing a rectangular garden of dimensions 15 m by 12m, if the fence is put five times all around and cost of fencing is Rs 5 per m.

Q45. Seth TejaLal divided Rs 5,02,002 between his son and daughter in the ratio 4 : 5.

- How much did each of them get?
- What do you think about Sethji as a person?

Q46. A man earns Rs 4900 in one week. How much will he earn in 10 days?

Q47. Solve the following equations:

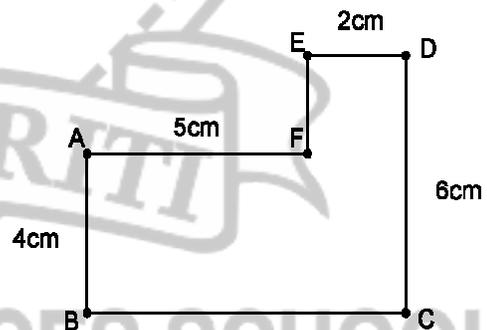
- $4x - 7 = -3$
- $8 = 6x - 4$

Q48. Find the cost of carpeting the floor of a room which is 4m 20cm long and 3m 65cm wide at the rate of Rs 1215 per sq m.

Q49. Seema can type 150 words in 3 minutes. Find out

- In how much time can she type 375 words?
- How many words can she type in 9 min 30 seconds?

Q50. Find the area of the following figure:



Sample Paper 1 (Term 1)**Section A**

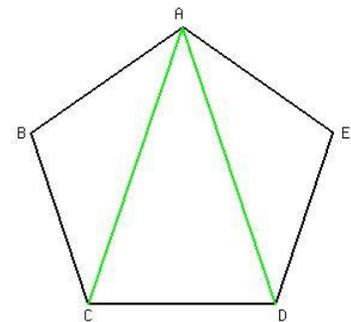
1. What is the minimum number of sides required to make a Polygon?
2. The whole number which cannot be used as divisor is _____.
3. -81 ___ 18 (put $>$ or $<$)
4. What fraction of a day is 8 hours?
5. Find $4 \times 1625 \times 25$ by suitable rearrangement.

Section B

6. Draw a rough figure and label suitably:
 - a) Line l contains points A and B but not C.
 - b) OA and OB meet at O.
7. Are whole numbers commutative under division? Give one example to justify your answer.
8. Evaluate: $|17| - |-15|$
9. Seema purchased $7 \frac{1}{2}$ kg of rice at the rate of Rs. $38 \frac{3}{4}$ per kg. How much money did she pay to the shopkeeper?
10. Convert the following:
 - a) 4.5 Km to cm
 - b) 36 mg to gram
11. State whether the following statements are true or false.
 - a) Radius is also a chord.
 - b) Infinite lines can pass through two given points.
 - c) A circle can have infinite chords
 - d) Diameter is twice the radius.
12. The Mount Everest is 29,018 feet above sea level. The deepest point in the Indian Ocean is the Java Trench at 23,376 feet. Find the distance between the two.
13. Find the L.C.M of 75, 150 and 200 using prime factorization.
14. Arrange the numbers in ascending order:
 $-6, 0, -7, 3, -10, 4$
15. Subtract 29 from the additive inverse of -127 .

Section C

16. In the given figure:
 - a) Name a diagonal
 - b) Name one pair of adjacent sides
 - c) Name the shape ABCDE



17. Find the value using suitable property:

(a) $55315 \times 85 + 15 \times 55315$

(b) 627×995

18. Use the number line to add:

$(-3) + (-8)$

19. Tushar spent $2\frac{1}{4}$ hrs. for completing his homework while sunny took $2\frac{2}{5}$ hrs. Who took more time and by how much?

20. Find the difference between a temperature of 7°C above zero and a temperature of 10°C below zero.

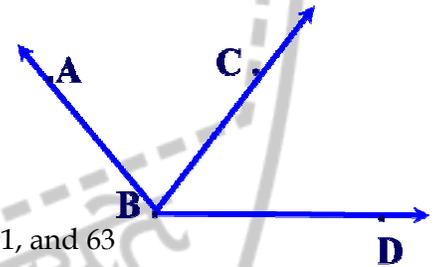
21. Sheela had Rs.50,000 with her. She ordered 35 radio sets. If the cost of one radio set is Rs. 1300, find the amount left with her.

23. Find the value using suitable rearrangement:

a) $2062 + 353 + 1438 + 547$

b) $4 \times 2893 \times 250$

24. How many angles are there in the given figure? Name them.



25. Santosh a physical education teacher, arranged three groups of 140, 91, and 63 students for march past. He arranged the same number of students in each row. What was the number of students he arranged in each row?

Section D

26. a) Subtract the sum of 865 and -493 from the difference of -380 and 675.

b) The sum of two integers is 45. If one of the integer is -23 , find the other integer.

27. Akshat's school bag weighs $4\frac{7}{12}$ kg. he takes out his Maths book weighing $1\frac{3}{4}$ kg and Science book weighing $\frac{1}{3}$ kg from the bag. What is the weight of the bag now?

28. Draw a circle with centre O and diameter 6 cm. Also draw and name the following:

a) A small area enclosed between a chord and an arc of the circle.

b) A small portion of the circumference with points X, Y, Z

c) A longest chord of the circle.

d) A line cutting the circle

29. When an army commander arranged to transport his battalion of soldiers, he considered 30-seater, 40-seater and 50-seater buses. In all three cases, he found that 10 seats were left vacant. What is the smallest number of soldiers in his battalion? Give two advantages of joining army.

30. What must be added to the difference of 22.7 and 10.078 to get their sum?

Sample Paper II (Term I)Section A

- Write the Multiplicative Inverse of 7.
- Number of lines that can pass through a given point is/ are _____.
- Find the missing denominator in $\frac{7}{13} = \frac{56}{\square}$
- Which is greater 6.25 or 6.235? (put > or <)
- Additive inverse of (- 57) is _____.

Section B

- State True or False
 - The difference of two whole numbers is always a whole number.
 - Zero is the smallest whole number.
 - Additive identity for whole numbers is zero.
 - Division of two whole numbers is commutative.
- Find using suitable rearrangement:

- $250 \times 38 \times 40$
- $173 + 577 + 27$

- In the given Quadrilateral ABCD, name the following:

- A pair of adjacent sides.
- A pair of opposite angles.

- Draw a figure and label suitably in each of the following cases:

- XY and PQ intersect at M.
- Point P lies on line AB but not point D.

- Convert the following:

- 7.8 Km to mm
- 53 mg to gram

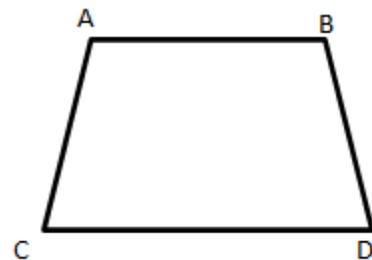
- In an examination, 1500 students appeared. 150 of them failed in the exam. Find the fraction of students who passed the exam.

- Arrange the following in descending order

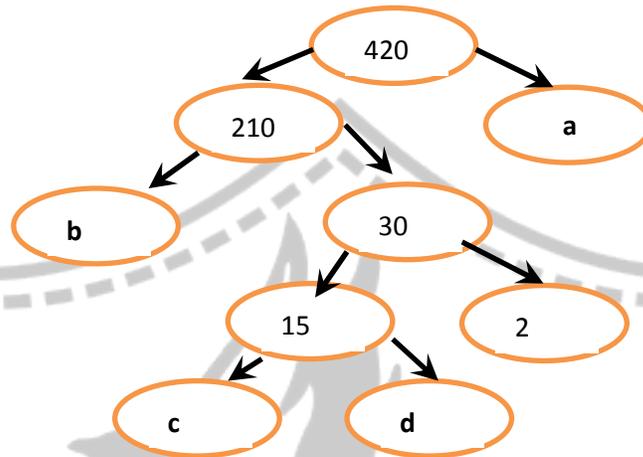
$-20, -14, -8, 6$

- Find the sum of -500 and its successor.

- Test the divisibility of 521353 by 11.



15. Complete the factor tree by finding the values of a, b, c & d.



Section C

16. a) Evaluate using suitable property:

a) $245 \times 159 - 245 \times 59$

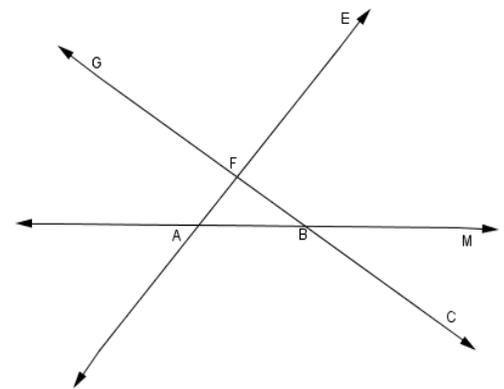
b) 356×1007

17. Observe the given figure and state True or False.

a) Point F is the point of intersection of two lines.

b) Points A, B and C are collinear.

c) Ray FG is opposite of ray FB.



18. A plank $3\frac{1}{2}$ m long is cut into two pieces. One part is $2\frac{1}{3}$ m in length. How long is the other part?

19. a) Write 2.46 as fraction in lowest form.

b) Write $\frac{3}{25}$ as a decimal.

c) Subtract: 5kg 20g from 9kg 500 g.

20. Subtract the sum of 9.125 and 12.36 from the sum of 25.2 and 103.167.

21. Ashok spent five - eighths of his money on chocolates and one-fourth of his money on orange juice. What fraction of his money was left?

22. Find the value of:

(i) $|-6| + |9| - |-8|$

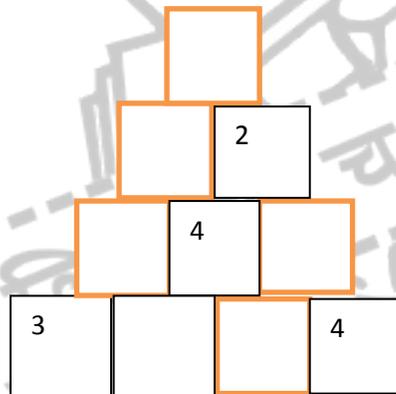
(ii) Find 5 more than - 5 (using number line)

23. The sum of two integers is -93. If one of them is 42, find the other.

24. The HCF and LCM of two numbers are 6 and 360 respectively. If one of the numbers is 24, find the other number.
25. Find HCF of 112, 140 and 168 using long division method.

Section D

26. Toy train A crosses a pole after every 24 seconds. Toy train B crosses a pole after every 30 seconds and train C crosses a pole after every 36 seconds. After how many minutes, do they all cross a pole together?
27. a) Raman and Rohit started their journey from the same point but in opposite directions. Raman travelled 80Km towards North and Rohit travelled 65Km towards South find the distance between their final destinations. **(Draw the required figure).**
- b) Which of the following decimal number is closest to zero and which one is farthest from zero.
2.4, 3.6, 1.25, 5.5, 3.28, 1.125, 3.75
28. In the given pyramid, each number above the base is made up from the sum of the two integers supporting it. Fill the empty boxes. **(Copy the Pyramid in your answer sheet).**



29. Raj earned Rs.2900 in a competition. He donated books worth Rs.300 to poor children. From the remaining money, he spent $\frac{3}{4}$ on dresses, $\frac{1}{5}$ th of the remaining money was deposited in the bank and with the rest he paid rent. How much is his rent? What value of Raj's character is depicted here?
30. Draw a circle with center O and diameter 8 cm. Also draw and name the following:
- A small area enclosed between a chord and an arc of the circle.
 - A small portion of the circumference with points X, Y, Z
 - A longest chord of the circle.
 - A line cutting the circle

ANSWERS

Assignment No. 1: Whole numbers

- 1) a. 1078 b. 1267 c. 1015 d. 1000
 2) a. 30,000 b. 89000 c. 136500 d. 1000.
 3) a. 52430 b. 7140 c. 27900 d. 0 e. 578000 f. 146
 4) 7500 5) 25000

Assignment No. 3(A): Fractions (warm up)

- 1) $\frac{2}{8}, \frac{5}{9}, \frac{2}{9}$ 2) $\frac{7}{12}, \frac{2}{5}$ 4) a. 10 b. 8
 5) a. No b. No 6) a. $\frac{2}{5}$ b. $\frac{2}{5}$ c. $\frac{2}{3}$ 7) a. $7\frac{1}{4}$ b. $6\frac{3}{10}$ c. $12\frac{5}{7}$
 8) a. $\frac{23}{4}$ b. $\frac{58}{9}$ c. $\frac{97}{8}$ 9) Raj , Payal , Lara , Shubh 10) a. Rs 12 b. 20 cm c. 45 weeks.

Assignment No. 3(B): Fractions (Addition and Subtraction)

- 1) a. $\frac{6}{7}$ b. $\frac{5}{4}$ c. $\frac{19}{24}$ d. $8\frac{7}{8}$ e. $19\frac{1}{3}$ 2) a. $\frac{2}{5}$ b. $\frac{1}{4}$ c. $\frac{8}{63}$ d. $\frac{83}{12}$ e. $\frac{83}{16}$
 3) No 4) $3\frac{5}{6}$ 5) $10\frac{1}{24}$ 6) Rashmi , 20cm 7) $\frac{7}{24}$ 8) Rs $34\frac{1}{4}$

Assignment No. 3(C): Fractions (Multiplication and Division)

- 1) a. 34 b. $34\frac{2}{5}$ c. $11\frac{7}{8}$ d. $\frac{2}{27}$ e. $\frac{1000}{3}$ 2) $\frac{63}{8}$ 3) $1\frac{1}{2}$ 4) Rs 100 5) 4m
 6) $2\frac{1}{2}$ km 7) $1\frac{2}{5}$ 8) 22hrs

Assignment No. 4: Decimals

- 1) a. 5.875 b. 0.6 2) a. $\frac{218}{225}$ b. $\frac{1001}{200}$ 3) a. 6.003 b. 0.245
 4) 75.75 , 75.5, 75.4, 75.39, 75.258, 75.20 5) a. $\frac{14}{5}$ b. $\frac{5}{4}$ 6) 36.725 7) Rs 4.75
 8) Sameera, 1.85kg 9) a. 48.9 b. 45 c. 9530 d. 91.9202 e. 0.05 f. 0.00211
 10) a. 161.37 b. 5.845 c. 2469.6 d. 287.064 11) a. 23.6 b. 0.214 c. 412 d. 9.8
 12) 25.85cm 13) 11.5 km 14) a. 5000000mm b. 4570mm c. 8.945 l d. 0.0465kg
 e. 7807cm f. 125.050km

Assignment No. 5: Playing with numbers

- 1) a. Not divisible b. Divisible c. Divisible 2) a. Divisible b. Not Divisible c. Divisible

- 3) a. Divisible b. Not Divisible c. Divisible 4) 35cm 5) 607 6) After 200 sec
7) 2730 8) 217 9) 120 10) 360, 72

Assignment No.6: Integers

- 1) a. 5 b. -60 c. -10 d. -99 e. 13 2) a. -21 b. -166 c. -38 d. 21 e. 105 3) a. 112
b. 10 c. -12 d. 13 4) 1550 5) Loss of Rs54 6) a. -7 b. -144 c. 335 d.30 7)a.-4 b. -80
8) 24 9)41 km west 10) Rs 2710

Assignment No.7: Understanding Elementary Shapes

- 1) (d) 2)(c) 3)a. 1 b. 4 4) a. Scalene b. equilateral c.Right angled isosceles d. acute angled
5) a.south-east b. north-west 6) i) Trapezium ii) kite 7) a. 9 b. Trapezium c. Octagon d.
Square e. 8,0 f. reflex 8) a. Cube b. Triangular prism

Assignment No.8: Mensuration

- 1) 1700m 2) 900 sq m 3) 442 m 4) 86 sq.cm. 5) 1800 6) 12cm
7) 1920 tiles, Rs15360 8) Perimeter = 16 cm, Area = 15 sq.cm.

Assignment No.9: Algebra

- 1) a. $x+7$ b. $y-5$ c. $2-x$ d. yz e. $x/3$ 2) a. $y-2z$ b. $-x-4$ c. $x/3 - 15$ d. $xy/5$ e. $5x+7y$ 3) nr
4) $(5y-3)$ years 5) xy cm 6) $75m + 35n$ 7) a. 13 b. 3 c. 60 d. 1 e. 8 f. 2 g. -5 h. 16 i. 24 j. 8

Assignment No. 11:Ratio& Proportion

- 1)a. 3:4 b. 1:8 2) a.Yes b. No 3) yes 4) a. $30^\circ, 60^\circ, 90^\circ$ b. Right Angled
Triangle 5) 5 6) a.50 min b.72km 7) (a), (c) 8) a) 25:21 b) 4:25 9) a) 35, 49 b) 250g, 200g 10) 20 parts

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