



MRA DAV Public School Solan

Holiday Home Work: Mathematics Class – VII (promoted to VIII)

- 1 Answer the following questions.
 - a) Take Sarita's present age to be x years
 - i. What will be her age 5 years from now?
 - ii. What was her age 3 years back?
 - iii. Sarita's grandmother's age is 6 times her age .What is the age of her grandmother?
 - iv. Grandmother is 2 years younger than grandfather. What is grandfather's age?
 - v. Sarita's father's age is 5 years more than 3 times Sarita's age . What is her father's age?
 - b) The length of a rectangular hall is 4m less than 3 times the breadth of the hall . What is the length , if the breadth is 5m ?
2. Solve the following riddles .(Hint : To solve these form a linear equation)
 - a) Go round a square
Counting every corner
Thrice and no more !
Add the count to me
To get exactly thirty four !
 - b) I am a special number
Take away from me a six !
A whole cricket team
You will still be able to fix !
 - c) Tell me who I am
I shall give a pretty clue!
You will get me back
If you take me out of twenty two!

3 Match the column 1 and column 2

Column 1	Column 2
I. The number of vertices a cylinder	a. 3
II. Lines of symmetry of an equilateral triangle	b. 1
III. $(-1)^{102}$	c. 0
IV. The number of faces of a cone	d. -32
V. Solution of equation $(2x-5)/3 = x + 9$	e. 2

4 A farmer has a square plot of land of side 300m . He wants to divide it into 9 equal squares and grow five different crops in such a way that crop of wheat lies exactly in the middle of plot and four corner squares are left vacant for beehive project and remaining squares are for flowers .

- Explain by diagram how can he divide the square plot to fulfill his dream .
- What area of squares left for beehive projects ?
- By using this crop pattern **which values are depicted** by the farmers?

5 A cyclist takes 7 rounds of a circular plot whose diameter is 210 m and 5 rounds of rectangular block whose dimensions are 220m x 150 m . Find the total distance covered by him.

6 Five circular beds each of radius 14m are dug on a triangular piece of land have base 440 m and height 50 m . What is the area of the remaining part of land ?

7 Tiger's count in Indian forest in the last 100 years is as follows:

Year	1900	1960	2002	2007
No.	40,000	18,000	3650	1400

- Make a bar graph to represent the above data.
- What **idea is promoted** here?

8 In a "cleanliness drive" residents of a locality joined together to clean adjoining area. If men clean $2/3$ rd of area and women cleaned $1/4^{\text{th}}$ of area and remaining area was broomed and sanitized by children of the society . Find out what fraction of total area was cleaned by children of the locality? Name five **values which are depicted** here?

- 9 Try to construct triangles using following number of matchsticks . Can you make a triangle with
- 3 matchsticks
 - 4 matchsticks
 - 5 matchsticks
 - 6 matchsticks

(Remember you have to use all the available matchsticks in each)

Name the type of triangle in each case.

If you cannot make a triangle , think and write of reasons for it.

- 10 Take a picture of Taj Mahal from the internet and draw as many lines of symmetry as you can .What precautionary measures can be taken to save the wonder of the world Taj?

- 11 Visit any historical monument and compare its symmetry with any modern building architecture .(Akshardham Temple or Lotus Temple etc.)

What steps can be taken to **preserve our historical monuments** ?

- 12 The selling price of 10 articles is the same as the cost price of 11 articles , find gain percent .
- 13 Mr. Sharma deposited Rs 20,000 as a fixed deposit in a bank at 10 % per annum . If 30 % is deducted as income tax on the interest earned , find his annual income.
- 14 A sum of Rs .8400 is made up of 50,20,10 and 5 rupees notes. The number of 10 rupee notes is five times the number of 5 rupee notes, four times the number of 20 rupee notes and ten times the number of 50 rupee notes. What is the number of notes in each denomination?
- 15 The difference in age between a girl and her younger sister is 4 years. The younger sister is 4 years older than her brother. The sum of the ages of the younger sister and her brother is 16 . How old are the three children?
- 16 Triangles ABC and PQR are both isosceles triangles with $AB=AC$ and $PQ=PR$ respectively .If also, $AB=PQ$ and $BC=QR$, are the two triangles congruent ?

- Which condition do you use ? If angle B = 50° , what is the measure of angle R?
- 17 A floral design on the floor of a building consists of 280 tiles . Each tile is in the shape of a parallelogram of altitude 3cm and base 5 cm .Find the cost of polishing the design at the rate of Rs 5 per sq.cm.
- 18 A horse is tied to a pole fixed at one corner of a 30×30 m² square field of grass by means of a 10 m long rope. Find
- The area of that part the field in which the horse can graze.
 - The increase in the grazing area if the rope were 20 m long instead of 10m long
- 19 The following observations have been arranged in ascending order . If the median of the data is 63 , find the value of x :
- 29,32,48,50,x,x+2 ,72 ,78,84,95
 - Also find the mean of the above data .
- 20 Find n such that
- $$(125/8)^5 \times (125/8)^n = (5/2)^{18}$$

Holiday Home Work: English
Class – VII (promoted to VIII)

- Read any one of the following books:-
 - Blue Umbrella by Ruskin Bond
 - Black beauty by Anna SewellWrite a summary of the books read in 200 words each.
- Create 3D geometrical figures like –Prism, Pyramid or Cuboids. On each face of the geometrical figures write slogans in English on the following topic:-
 - Slogan on peace
 - Slogan on brotherhood and harmony
 - Slogan on hard work and perseverance
 - Slogan on water conservation
 - Slogan on dedication to work
- Write a short story or poem on any topic of your choice. Work should be original.
- Make a collage on the theme compassion and kindness.