

MODEL QUESTION SET

Mathematics

Class: 6

F.M.: 50

Time: 2 hours

Attempt all the questions.

1. A teacher asks to list out the factors of 18. Answer the following questions.
 - (a) Express the set in listing method. 1
 - (b) Is 36 a member of the set? Give reason. 1
 - (c) Re-write the set in set-builder form. 1

2.
 - (a) The mathematical expression for '4 times the sum of 7 and 3' is 1
 - (b) On the occasion of a Sunil's birthday, he distributed 24 snickers and 36 cadburies equally to his friends. What is the greatest number of his friends? Find. 2
 - (c) In the morning assembly, 324 students are arranged in the square form. How many students are there in each row? 2

3. Kristina's family members visited Lumbini last week. While going to airport from her home, they walked certain distance then travelled $\frac{3}{4}$ parts of the distance by bus and $\frac{1}{6}$ parts of the distance by taxi.
 - (a) By which vehicle did they travel more to go to airport? 2
 - (b) If the distance of the airport from her home is 20 km, how long distance did they travel by bus? 1
 - (c) Convert the distance traveled by taxi up to decimal places. 1
 - (d) What is the bus fare of a member at the rate of Rs 5.75 per km? 1

4. Mr. Thapa is a stationer. He bought 20 books for Rs 6,000.
 - (a) What is the cost price of each book? 1
 - (b) If he made a profit of Rs 30 in each book, what is the selling price of all the books? 2
 - (c) If he sold 45% of books on Sunday, how many books did he sell on Sunday? 1

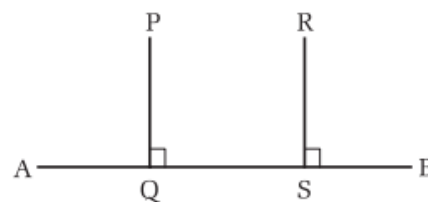
5. Mr. Ghale has a rectangular plot and Mrs. Chaudhari has a square plot. The plot of Mr. Ghale is 50 ft. long and 32 ft. wide. The areas of their plots are equal.
 - (a) What is the area of Mrs. Chaudhary's plot? 1
 - (b) What is the length of Mrs. Chaudhary's plot? 1
 - (c) Who will need more wire to fence their plots for only one round? Find it. 2
 - (d) If Mr. Ghale built a cuboidal house on his plot with length 40 ft., width 30 ft. and height 20 ft, what is the volume of his house? 1

6. (a) What is the product of the expressions $4a^3$ and $5a^2$? 1
 (b) There are 5 hands of bananas in a bunch and 6 hands of bananas in another bunch. If there are x fingers in each hand of bunches, how many total fingers in both bunches of banana? 2

7. The area of a rectangular field is $(14x^2y^3 + 21xy^2)$ sq. m.
 (a) If the length of the field is $7xy^2$ meter, find its breadth. 2
 (b) If $x = 3$ and $y = 1$, what is the actual breadth and area of the field? 2

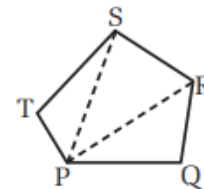
8. (a) What is the appropriate symbol ' $<$ ' or ' $>$ ' or ' $=$ ' in the blank spaces of $7 \dots 4$? 1
 (b) The cost of 10 pencils is Rs 15 more than the cost of such 7 pencils. What is the cost of a pencil? 2

9. (a) In the given figure; write the down the relationship between
 (i) PQ and AB 2
 (ii) PQ and RS



- (b) Draw a line segment AB of length 6 cm by using a ruler. At A, by the help of compass; draw $PA \perp AB$ where $PA = 8$ cm then join P and B. 3
 (c) What type of triangle PAB is formed? Give reason. 1
10. (a) The chord that passes through the centre of the circle is called 1

- (b) Write down the name of 3 triangles and 2 quadrilaterals from the given figure. 2



- (c) In a cubical box, if the number of faces = F, the number of edges = E and the number of vertices = V. What is the value of $F + V - E$? 1
11. (a) Plot the points A (6, 5), B (-2, 5), C (-2, -1) and D (2, -1) on a graph paper. Join the points in order. Name the figure so obtained. Also, find the area of the figure. 3
 (b) Draw a tessellation using the squares of same size and colour it. 2

12. The table given below shows the number of students enrolled in a school in the academic session 2078 B.S. from class VI to class X

Class	VI	VII	VIII	IX	X
Number of students	30	35	40	25	30

- (a) Draw a bar graph to represent the data. 2
 (b) How many total students were enrolled from class VI to class X?

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