MRA DAV Public School Solan

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

Perimeter and Area

1. A courtyard is 25m long and 16 m board is to be paved with bricks of dimensions 20 cm by 10 cm. What is the total number of bricks required?

2. A rectangular field is to be fenced on three sides leaving a side of 20 feet uncovered. If the area of the field is 680 sq.ft, how many feet of fencing will be required?

3. Find the area and perimeter of the following rectangles whose dimensions are:-
   a) Length = 17m   Breadth = 13m
   b) Length = 6.9 cm   Breadth = 5.1 cm
   c) Length = 5m   Breadth = 32 dm
   d) Length = 9 hm   Breadth = 7 dam

4. The perimeter of a rectangle is 230 cm. If the length of rectangle is 70 cm, find its breadth and area.

5. The area of the rectangle is 96 cm^2. If the breadth of the rectangle is 8cm, find its length and perimeter.

6. How many tiles whose length and breadth are 13 cm and 7 cm respectively are needed to cover a rectangular region whose length and breadth are 520cm and 140cm.

7. Find the cost of tiling a rectangular plot of land 300m long and 150 m wide at the rate of ₹ 6 per hundred square m.

8. If it costs Rs 1600 to fence a rectangular park of length 20m at the rate of Rs 25 per m^2, find the breadth of the park and its perimeter. Also, find the area of the field.

9. The length of a rectangular wooden board is thrice its width. If the width of the board is 120cm, find the cost of framing it at the rate of ₹ 5 for 20 cm.

10. The ratio between the length and breadth of a rectangular park is 3:2. If a man cycling along the boundary of the park at the speed of 12km/hr completes one round in 8 minutes, then find the area of the park.

11. What will be the cost of gardening 1m boundary around a rectangular plot having perimeter of 340 m at the rate of Rs 10 per square m?

12. 50 square stone slabs of equal size were needed to cover a floor of area of 72 sq.m . Find the length of each stone slab.

13. The perimeters of 5 squares are 24cm, 32cm, 40cm,76cm and 80cm respectively. Find the perimeter of another square equal in area to the sum of the area of these squares.

14. What are the least number of square tiles required to pave the floor of a room 15m 17cm long and 9m 2cm broad?

15. The perimeters of two squares are 40 cm and 32 cm. Find the perimeter of the third square whose area is equal to the difference of the areas of the two squares.

16. A farmer wishes to start a 100 sq.m. rectangular vegetable garden. Since he has only 30m barbed wire, he fences three sides of the garden letting his house compound wall act as the fourth side fencing. Then find the dimensions of the garden.

17. A rectangular field is to be fenced on three sides leaving a side of 20 feet uncovered. If the area of the field is 680 sq.ft, how many feet of fencing will be required?

Linear equations in one variable

Solve each of the following equation and hence check :-

18. $3(x+ 4) = 21$

19. $3x - 9 = 5x - 3$

20. $3x - \dfrac{1}{3} = 5$

21. $3(x - 3) = 4 (2x +1)$

22. $\dfrac{2x}{3} - \dfrac{3x}{5} = 8$

23. $\dfrac{x}{2} - \dfrac{x}{3} = 8$

24. $\dfrac{x-8}{3} = \dfrac{x-3}{5}$

25. $2(x -2) - 5 (x-5) = 4 (x-8)- 2 (x- 2)$

26. $6x - 9 - 2(1 -x) = x +9$

27. $0.25(4y - 3) = 0.5y -9$

28. Convert the following statements into equations:-

a) 5 added to a number is 9.

b) 3 subtracted from a number is equal to 12.

c) 5 times a number decreased by 2 is 4.

d) 2 times the sum of the number x and 7 is 13.

29. A number is 12 more than the other. Find the numbers if their sum is 48.

30. Twice the number decreased by 22 is 48. Find the number.
31. Seven times the number is 36 less than 10 times the number. Find the number
32. 4/5 of a number is more than ¾ of the number by 5. Find the number.

Integers

33. Verify a-(-b) = a + b for the following values of 'a' and 'b':-
a)   a = 75   b = 84
b)   a = 118   b = 125
34. Write down a pair of integers whose
a)   Sum is -3
b)   Difference is -5
35. Verify the following:-
a)   (-15) x [(-8) + (-6)] = [(-15) x (-8)] + [(-15) x (-6)]
36. Do as directed:-
     In a test (+5) marks are given for every correct answer and (-2) marks are given for every incorrect answer.
a)   Radha answered all questions and scored 30 marks though she got 10 correct answers.
b)   Jai also answered all the questions and scored (-12) marks though he got 4 correct answers.
     How many incorrect answers had they attempted?
37. In a quiz, team A scored -50,30,0 and team B scored 60,30,-40 in three successive rounds. Which team scored more?
38. In a class test containing 15 questions 4 marks are given for every correct answer and (-2) marks are given for every incorrect answers:
a)   Govind attempts all questions but only 9 of his answers are correct. What is his total score?
b)   One of his friends gets only 5 answers correct. What will be his score?

Algebraic Expressions

39. Add the following expressions:-
a)   3xy- 6yz+ 12xz and –xy +4xz + 6yz
b)   7abc + 8a +9bc ; abc – 5a + 5cb and 13abc
40. Subtract the following expressions:-
a) $12x^2 + 7y + 4z$ from $-6x^2 + 3z$
b)   5s – 9t -24 from 12 – 2s + t
41. If a= -3 and b = 6 , then verify the following:-

a) $(a-b)^2 = a^2 + b^2 - 2ab$
b) $(a+b)^2 = a^2 + b^2 + 2ab$
c) $a^2 - b^2 = (a-b)(a+b)$
42. If the length of the rectangle is $2x + y$ and breadth is $y + 3x$, find its perimeter and also its area.
43. If the three sides of triangle are $(x + 2y)$, $(2x + 3y)$ and $(3x + 3z)$, then find its perimeter.

Applications on Percentage

44. A television set was bought for Rs 3900. Rs 200 were spend on transportation and Rs 900 on repair. It was sold at a loss of 10 %. Find S.P. of television.
45. A bed sheet was sold for Rs 483 thereby gaining 15%. Find the cost price of the bed sheet.
46. By selling a pen for Rs 60 Shyam gains 25%.Find the Cost Price of the pen?
47. 75% of the total number of students, didn't go for picnic. Those who went for the picnic were 750. Find the total number of students in the school.
48. Find the Simple Interest and Amount in each case :
a) P= Rs 5660   R = 11%   T = 9 months
b) P= Rs 2600   R = 12%   T = 146 days
49. The simple interest of Rs 24,000 in 3 years at 4% p.a. will be same as simple interest on Rs 7,200 at 5% p.a. in how many years?
50. Find S.P. if:
   a) Cost price = Rs 675 & Loss% = 9.2%
   b) Cost price = Rs 875 and Gain % = 5%

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

1. Read J. K Rowling's famous book 'Harry Potter and the Philosopher's Stone'.
 • Write a short summary of the story (75 words) and name the main characters.
 • Choose 10 interesting adjectives from the book and find their dictionary meanings.
2. Make a bookmark. Decorate it and write an inspirational quotation by a well know poet or author.
3. Make a collage on the topic "My Favorite Sport".
4. Write a short paragraph on 'How I spent my Winter Vacation'