

**DEVAMATHA CMI PUBLIC SCHOOL**  
**HALF YEARLY EXAMINATION 2017-2018**

**Std. VII****MATHEMATICS**

Time : 3 h.

Marks : 80

General Instructions :

1. All questions are compulsory.
2. The question paper consists of 34 questions divided into four sections A, B, C, D.
3. Question numbers 1 to 10 carry 1 mark each.
4. Question numbers 11 to 20 carry 2 marks each.
5. Question numbers 21 to 30 carry 3 marks each.
6. Question numbers 31 to 34 carry 4 marks each.

**PART - A**

I Choose the correct answer from the options given below :

(1x10=10)

1. Which pair of the following angles are complementary ?

[ $60^\circ, 20^\circ$  ;  $75^\circ, 25^\circ$  ;  $48^\circ, 52^\circ$  ;  $35^\circ, 55^\circ$ ]

2. The sum of a number and its additive inverse is equal to \_\_\_\_\_

[1 ; 0 , 2 ; number itself ]

3.  $2.3 \div 100 =$  \_\_\_\_\_

[2300.0 ; 230.0 ; 0.023 ; 0.0023 ]

4. For tossing a coin, the probability of getting tail is \_\_\_\_\_

[1 ;  $\frac{1}{2}$  ,  $\frac{1}{3}$  ; 0]5. The solution of an equation  $3n-2 = 16$  is \_\_\_\_\_[5 ;  $\frac{14}{3}$  ; 6 ; 7 ]6.  $(-18) \times \square = (-18)$ 

[ 0 , 1 , -1 , +18 ]

7.  $\frac{2}{3}$  of 18 is \_\_\_\_\_

[ 12 , 14 , 16 ; 10 ]

8. The measure of each angle of an equilateral triangle is \_\_\_\_\_

[ $30^\circ$  ,  $60^\circ$  ,  $45^\circ$  ,  $75^\circ$  ]

9. Vertically opposite angles are always \_\_\_\_\_

[Complementary , Supplementary , equal to each other , unequal to each other ]

10. If  $\frac{x}{3} = -12$  then  $x =$  \_\_\_\_\_

[ 36 , 4 , -36 , -4 ]

PART - B

11. Find the mean of the data .

(2x10=20)

4, 5, 3, 6, 3, 5, 3, 4, 3.

12. Each side of square is 6 m. long. Find its area.

13. Simplify:

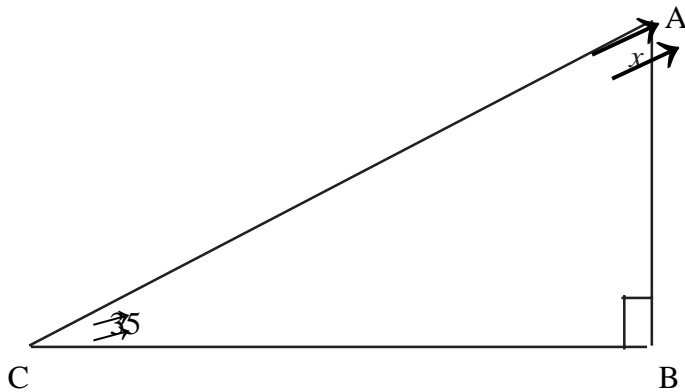
[  $36 \div (-9)$  ]  $\div$  [  $(-24) \div 6$  ]

14. Solve:

$5 = (4p - 2) + 1$

15. If  $(5x - 1)^0$  and  $(5x - 19)^0$  form a linear pair , then find x.

16. Find the value of unknown x in the following  $\triangle ABC$ .

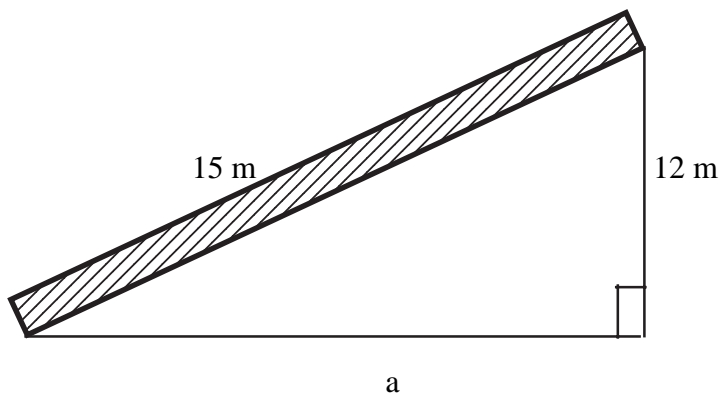


17. Find:

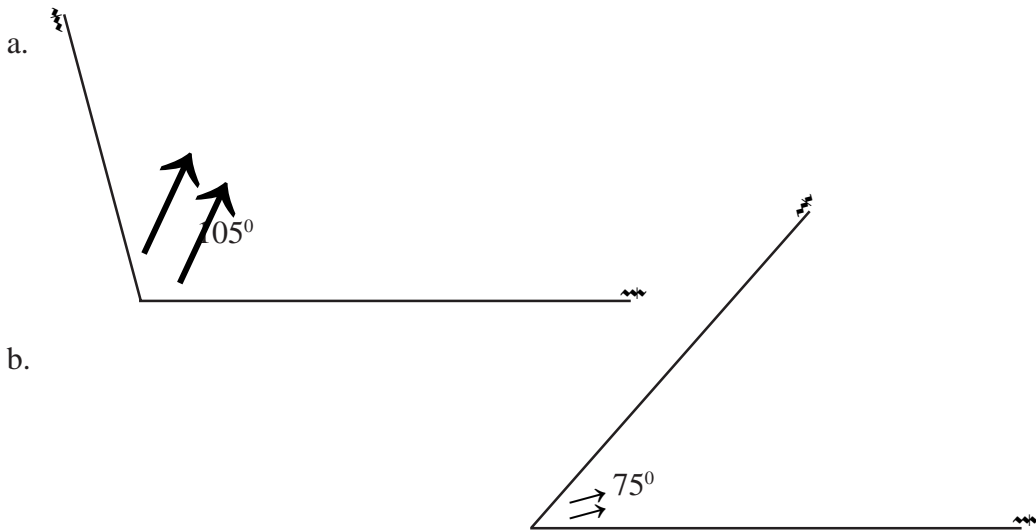
a)  $(-7) \times (-7) \times 1 =$  \_\_\_\_\_

b)  $0.35 \div 5 =$  \_\_\_\_\_

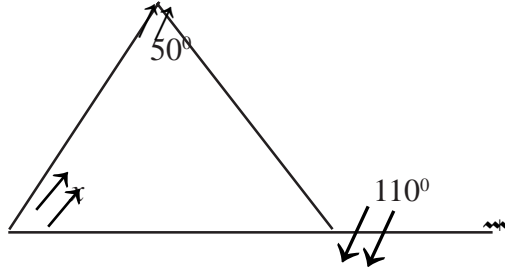
18. A 15 m long ladder reached a window 12 m high from the ground on placing it against a wall at a distance 'a'. Find the distance of the foot of the ladder from the wall .



19. Find the supplement of each of the following angles.



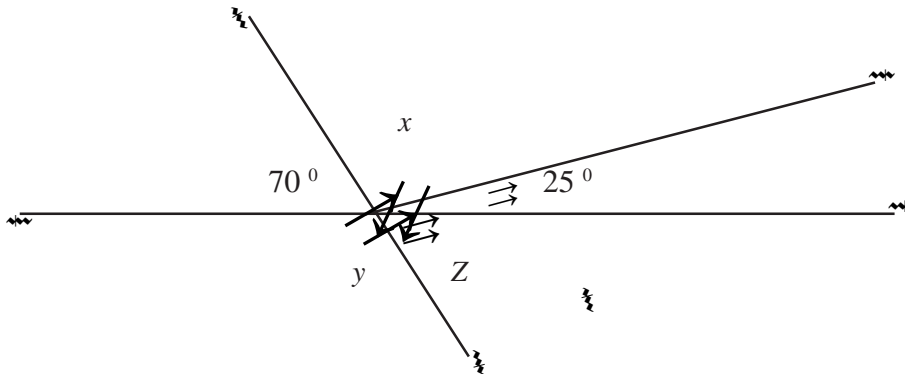
20. Find the value of the unknown Interior angle in the following figure.



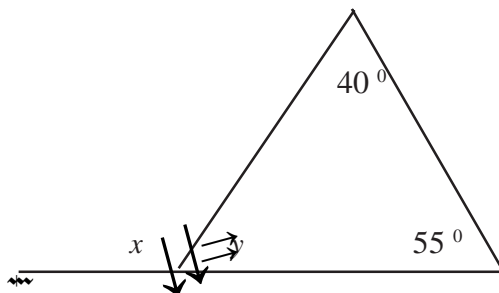
PART C

21. Find the values of angle  $x$ ,  $y$  and  $z$  in the following diagram.

(3x10=30)



22. Find the values of the unknown  $x$  and  $y$  in the following diagram.



23. In an Isosceles triangle, The base angles are equal the vertex angle is  $40^\circ$ . What are the base angles of the triangle ?

24. Find :

a).  $(-75) \div 5 = \underline{\hspace{2cm}}$

b).  $64 \div (-16) = \underline{\hspace{2cm}}$

c).  $(-18) \times (-2) \times 5 = \underline{\hspace{2cm}}$

25. The length of a Rectangle is 18 cm more than its breadth. If its perimeter is 84 cm, find the length and breadth.

26. Solve :

a)  $1.07 \times 0.2$

b)  $2.73 \div 1.3$

27. Find :

a)  $3 \frac{2}{5} \times \frac{4}{9}$

b)  $7 \div 2 \frac{4}{7}$

28. Length of a Rectangle is 8 cm. and its breadth is 4.6cm.

Find its :

- a) Area                      b) Perimeter

29. Find the product using suitable properties.

a)  $-65 \times 102$

b)  $26 \times (-47) + (-47) \times (-36)$

30. The marks of 11 students (out of 25) are as follows :

21, 20, 13, 15, 10, 20, 15, 21, 18, 20 and 14.

Find the median, range and mean

#### PART - D

31. Find:

(4x5=20)

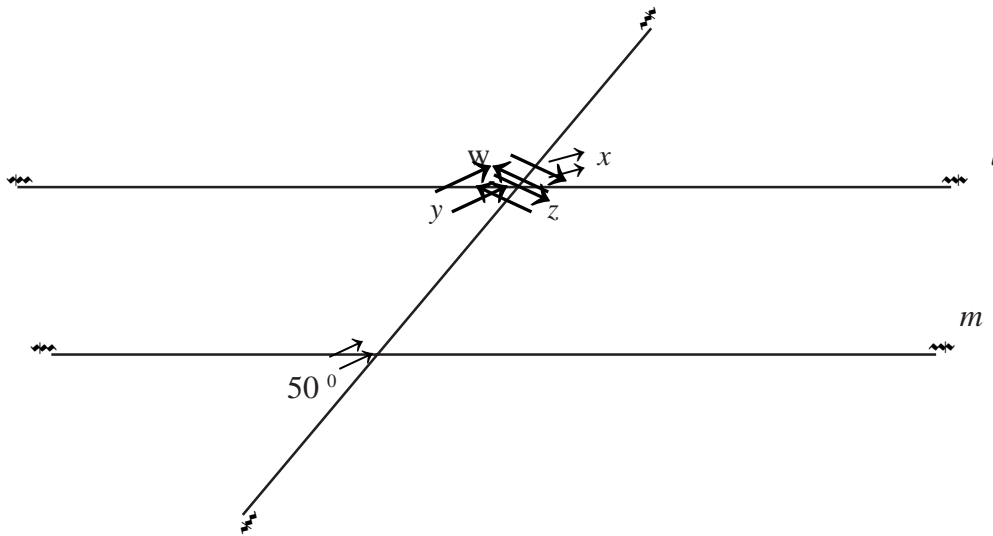
a)  $43.07 \times 100$

b)  $38.53 \div 1000$

c)  $4.8 \div 10$

d)  $153.25 \times 10$

32. Find the value of  $w, x, y, z$  in the following figure, if  $l \parallel m$ .



33. Set up equations and solve them to find the unknown number in the following cases :

a) One fifth of a number minus 4 gives 3.

b) Munna thinks of a number. If he takes away 6 from  $\frac{5}{2}$  of the number, the result is 24.

34. In a class test containing 10 questions, 5 marks are awarded for every correct answer and (-2) marks are awarded for every incorrect answer and Zero for questions not attempted.

a) Mohan gets 4 correct and 6 incorrect answers. What is his score ?

b) Reshma gets 5 correct and 5 incorrect answers. What is her score ?

c) Heena gets 2 correct and 5 incorrect answers. Out of 7 questions. She attempts.  
What is her score ?

35. Sale of English and Hindi books in the year 1995, 1996, 1997 and 1998 are given below :

Years	1995	1996	1997	1998
English	350	400	450	620
Hindi	500	525	600	650

Draw a double bar graph and answer the following question .

a) In which year the difference in the sale of two language books least ?

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