



# DELHI PUBLIC SCHOOL FIROZABAD

Half yearly Examination - Term 1

Subject-Mathematics

Class-VII

M.M. 80

Duration: 3 hrs

Adm. No. \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_

## General Instructions:

1. All questions are compulsory.
2. Marks for each question are mentioned appropriately.
3. Question paper is divided into five sections A,B,C,D,E.
4. Questions are to be answered on the question paper itself on the space provided against each question.

## SECTION – 'A'

### Q 1. Tick the correct answer :

(0.5x10=5 )

1. The value of  $(-9) \times 56 \times 0 \times (-56)$  is

- (a) -28224      (b) 9      (c) 0      (d) 28224

2. Find the value of x in  $3x + 24 = 72$

- (a) 14      (b) 16      (c) 12      (d) 18

3. Which represent  $\frac{1}{5} \div 6$

- (a)  $\frac{6}{5}$       (b)  $\frac{5}{6}$       (c)  $\frac{1}{5} \times \frac{1}{6}$       (d)  $\frac{1}{3}$

4. If a and b are integers, which of the following is not true

- (a)  $a \times b = b \times a$       (b)  $a \times 1 = a$       (c)  $a \div b = b \div a$       (d)  $a \times 0 = 0$

5. If  $2y + 7 = 27$  then find the value of  $2y - 55$

- (a) -45      (b) -35      (c) 35      (d) 45

6.  $\frac{1}{5}$  of  $\frac{1}{5}$  is

- (a)  $\frac{1}{5}$       (b) 5      (c)  $\frac{1}{25}$       (d) 1

7. What will be the supplement of the right angle?

- (a)  $180^\circ$       (b)  $0^\circ$       (c)  $90^\circ$       (d) none

8. If two lines intersect, vertically opposite angles are

- (a) complementary      (b) supplementary      (c) equal      (d) unequal

9. The angles of a triangle are in the ratio 2:1:2 . The triangle is

- (a) scalene      (b) equilateral      (c) right angled      (d) isosceles

10. If two angles are  $57^\circ$  and  $32^\circ$  then third angle is

- (a)  $81^\circ$                       (b)  $91^\circ$                       (c)  $89^\circ$                       (d) none

**SECTION – 'B'**

**Q 2. Calculate the following as directed in the question :**

**A. Fill in the blanks:**

**( 1x8=8 )**

1.  $25.4 \div 1000 =$  \_\_\_\_\_
2. The lowest form of product  $2 \frac{3}{7} \times \frac{7}{9} =$  \_\_\_\_\_
3. If 10 less than a number is 65, then the number is \_\_\_\_\_
4. If  $\frac{1}{5} - X = \frac{1}{5}$ , then  $X =$  \_\_\_\_\_
5. If two adjacent angles are supplementary, they form a \_\_\_\_\_
6. Every triangle has at least \_\_\_\_\_ acute angle(s).
7. The longest side of a right angled triangle is \_\_\_\_\_
8.  $1.789 - 0.600 + 2.001 - 3.5$  equals \_\_\_\_\_

**B. State true and false:**

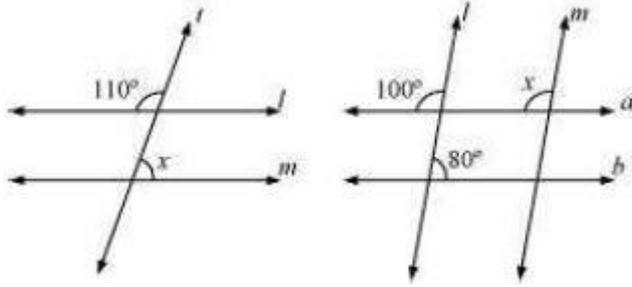
**( 1x4=4 )**

1. 5 is the solution of  $3X + 2 = 17$ .
2. Two right angles are always supplement to each other.
3. AAS congruence criterion is same as ASA congruence criterion.
4. The base of an isosceles triangle can be a right angle.

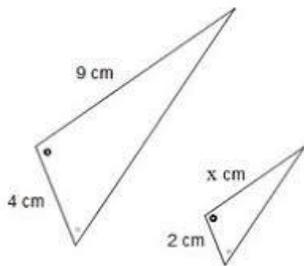
**C. Answer the following questions:**

**( 1x8=8 )**

1. Solve  $[-30 - (-18)] \div [19 + (-13)]$
2. Write four rational numbers equivalent to  $\frac{5}{-9}$
3. Find the complement and the supplement of (a)  $39^\circ$  (b)  $67^\circ$
4. Find the value of : (a)  $2.63 \times 0.0064$  (b)  $6.32 \times 1000$
5. Find the value of  $X$  in the given figures:



6. Write two rational numbers between -6 and -5.
7. Find the solution of the equation  $6(5X - 2) + 12 = 60$ .
8. Find the missing side  $x$  of the triangle.

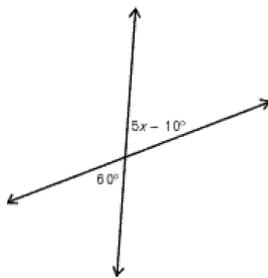


### SECTION – ‘C’

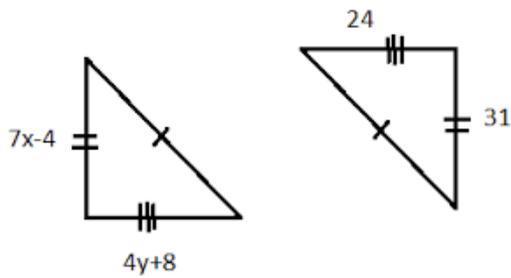
**Q 3: Solve the following as instructed in the statement:**

**( 2x10=20)**

1. Simplify: (a)  $36 \div 3 + 4 \times 3 - 4$  (b)  $10 - \{5 + (-3) + 8 - (-11)\}$
2. Use distributive law to simplify  $(-597) \times (-63) + (-546) \times (-63)$
3. The sum of two consecutive numbers is 73. Find the numbers.
4. Find the missing angle.



5. Define supplementary angle giving an example and draw its figure also.
6. (a) Write 23.67 in the expanded form.  
(b) Evaluate  $4.346 - 1.16 + 3.402 - 2.3$
7. State in which cases angles can possibly be those of a triangle.  
(a)  $78^{\circ}, 39^{\circ}, 63^{\circ}$  (b)  $37^{\circ}, 62^{\circ}, 84^{\circ}$
8. If the given triangles are congruent then find the value of  $X$ .



9. Express  $\frac{-8}{9}$  as a rational number with

- (a) numerator = -32                      (b) denominator = 81

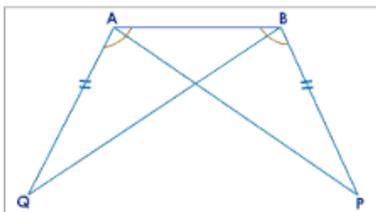
10. Represent  $\frac{3}{7}$  and  $\frac{-2}{5}$  on the number line.

### SECTION – ‘D’

**Q 4. Calculate the following questions:**

**( 4x5=20)**

1. The product of the three integers is -600. If two of them are -15 and 10, find the third integer.
2. In a right angled triangle, the two acute angles are in the ratio 2:3 , find all the angles.
3. Simplify:  $-\frac{5}{6} - \left(\frac{7}{-8}\right) + \frac{11}{12} - \left(\frac{-1}{6}\right) + 0 - \left(\frac{-7}{-16}\right)$
4. State Pythagoras Theorem with figure representing the sides and give its formulae also.
5. Given that  $AQ = BP$  , angle A and angle B are equal, then prove triangle ABQ is congruent to triangle ABP.



### SECTION – ‘E’

**Q 5. Read the following questions carefully and solve:**

**( 5x3=15)**

1. A sum of money was distributed among the poor.  $\frac{7}{19}$  of the whole amount was distributed. If left money is Rs.5600.
  - (a) How much was the total sum?
  - (b) what value do you learn in this question?
2. State Angle Sum Property of the triangle and then prove it. Draw its figure also.
3.
  - (a) The length of a rectangle is two times of its width. The perimeter of the rectangle is 180. Find the dimensions of the rectangle.
  - (b) Two complementary angles differ by  $20^\circ$ . Find the angles.