WORKSHEET - 1

1.Find: $\frac{3}{7} + \left(-\frac{6}{7}\right) + \left(-\frac{8}{21}\right) + \frac{5}{22}$

2. Find using distributive property:

a) $\{\frac{7}{5} \times -\left(-\frac{3}{12}\right)\} + \{\left(\frac{7}{5}\right) \times \frac{5}{12})$

b) $\{\frac{9}{16} \times \frac{4}{12}\} + \{\frac{9}{16} \times \left(-\frac{3}{9}\right)\}$

3. Simplify:

a) $\left(-\frac{8}{5} \times \frac{3}{4}\right) + \left(\frac{7}{8} \times -\frac{16}{25}\right)$

b) $(-\frac{3}{4} \times -\frac{8}{15}) - \left(\frac{2}{3} \times -\frac{3}{5}\right) - (\frac{4}{7} \times -\frac{14}{15})$

4. Verify that $a \times (b \times c) = (a \times b) \times c$ by taking a $= -\frac{4}{7}, b = \frac{14}{15}$ and $c = -\frac{3}{4}$.

5. Find three rational numbers between:

a) $\frac{1}{8}$ and $\frac{1}{12}$

b) $\frac{4}{15}$ and $\frac{5}{15}$

6. $\frac{1}{6}$ Of a ship's crew are engineers, $\frac{1}{4}$ are stewards and the rest are sailors. If there are 48 crew members in all, how any sailors are on board the ship?

7. Simplify:

a) $\frac{3}{7} + \frac{5}{9} - \left(-\frac{2}{3}\right)$ b) $-\frac{4}{11} + \left(-\frac{2}{3}\right) - \left(-\frac{5}{9}\right)$

8. Find the difference between the greatest and the least numbers of

$$-\frac{7}{30}, \frac{5}{12}, \frac{7}{20}, -\frac{6}{15}$$

WORKSHEET - II

1.Write an equation and solve:

a) $\frac{1}{5}$ of a number is 60. What is the number?

b) 10% of a number is 63. What is the number?

c)The attendance of a class today is 32. This is 4 less than the total number of students in the class. What is the total number of students in the class?

2. Solve:

a) x + 8 = 16   b) 5x-3 = 12 + 8x

c) 5(x+ 43) = 2(3x + 4)   d) 13 y = -12 y + 100

3. Find the value of unknown variable:

a) -16= -a – 2   b) 3.3 x + 22= -11-7.7 x

4. Solve the following equations:

a) 16- 3(a-7) = -14

b) 5(t-2) + (t-3) = 2(2t+ 1) – 9

5. Each of two sides of n isosceles triangle is two times as large as the third side. If the perimeter of the triangle is 20m find each side .

6. The difference between the two numbers is 48. The ratio of the two numbers is 7:3. What are the two numbers?

7. The length of a rectangle is twice its breadth. If the perimeter is 72 metre, find the length and breadth of the rectangle.

8. Aaron is 5 years younger than Ron. Four years later, Ron will be twice as old as Aaron. Find their present ages.

9. A number is divided into two parts, such that one part is 10 more than the other. If the two parts are in the ratio 5 : 3, find the number and the two parts.

1. Draw the following:

Square, rectangle, parallelogram and a rhombus

Also write the properties of above mentioned quadrilaterals.

2. Two adjacent angles of a parallelogram are equal. What is another name for this parallelogram?
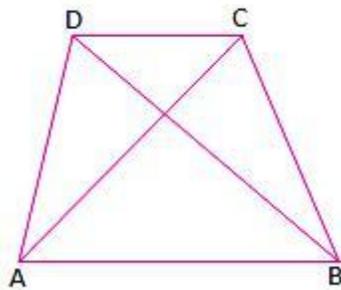
3. ABCD is a parallelogram. One of the angles of this parallelogram i.e A = 50^0. Find B , C , D.

4. In the adjacent figure, the bisectors of ∠A and ∠B meet in a point P.
If ∠C = 100^0 and ∠D = 60°, find the measure of ∠APB.
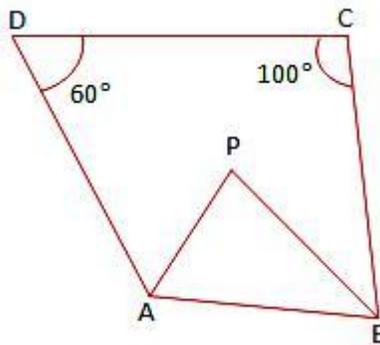
5. The adjacent angles of a parallelogram are in the ratio 2: 3. State all the angles.

6. *In the adjoining figure, ABCD is a quadrilateral.*

(i) How many pairs of adjacent sides are there? Name them.

(ii) How many pairs of opposite sides are there? Name them.

(iii) How many pairs of adjacent angles are there? Name them.

(iv) How many pairs of opposite angles are there? Name them.

(v) How many diagonals are there? Name them.

7. Prove that the sum of the angles of a quadrilateral is 360°.

8. The three angles of a quadrilateral are 76°, 54° and 108°. Find the measure fourth angle.

9. The angles of a quadrilateral are in the ratio 3 : 5 : 7 : 9. Find the measure of each of these angles.

10. A quadrilateral has three acute angles, each measuring 75°. Find the measure of the fourth angle.

11. Three angles of a quadrilateral are equal and the measure of the fourth angle is 120°. Find the measure of each of the equal angles.

12. Two angles of a quadrilateral measure 85° and 75° respectively. The other two angles equal. Find the measure of each of these equal angles.

WORKSHEET – IV

1. Each of two sides of an isosceles triangle is two times as large as the third side. If the perimeter of the triangle is 120m find each side .

2. The difference between the two numbers is 60. The ratio of the two numbers is 7:5. What are the two numbers?

3. The length of a rectangle is twice its breadth. If the perimeter is 120 metre, find the length and breadth of the rectangle.

4. A quadrilateral has three acute angles, each measuring 60°. Find the measure of the fourth angle.

5. Three angles of a quadrilateral are equal and the measure of the fourth angle is 45°. Find the measure of each of the equal angles.

6.Two angles of a quadrilateral measure 95° and 65° respectively. The other two angles equal. Find the measure of each of these equal angles.

7. Simplify:

a) $\frac{3}{7} + \frac{2}{3} - \left(-\frac{2}{9}\right)$

b) $-\frac{4}{12} + \left(-\frac{3}{4}\right) - \left(-\frac{5}{9}\right)$

8. Find using distributive property:

a) $\{\frac{7}{5} \times -\left(-\frac{13}{12}\right)\} + \{\left(\frac{7}{5}\right) \times \frac{7}{12}\}$

b) $\{ 1\frac{9}{16} \times \frac{4}{12}\} + \{1\frac{9}{16} \times \left(-\frac{3}{9}\right)\}$

9. Simplify:

a) $\left(-\frac{18}{5} \times \frac{4}{9}\right) + \left(\frac{7}{8} \times -\frac{16}{25}\right)$

b) $(-\frac{3}{14} \times -\frac{7}{15}) - \left(\frac{5}{6} \times -\frac{3}{5}\right) - (\frac{2}{7} \times -\frac{14}{15})$

10. Verify that $a \times (b \times c) = (a \times b) \times c$ by taking a $= -\frac{2}{3}, b = \frac{1}{5} \, and \, c = -\frac{3}{4}$.

ACTIVITY:

Make a geo board and represent the special quadrilaterals(Rectangle, Square, Rhombus and Parallelogram) on it. Also verify their properties using Geo Boards.