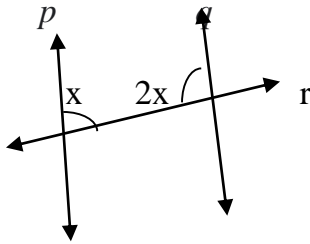**Subject: Mathematics**

Grade -7   **WORKSHEET-I-TERM-2(2021-'22)**

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BLOCK-12: Parallel Lines

1. If the transversal line intersects the two parallel lines, then each pair of the corresponding angles is _____

2. If the parallel lines intersected by a transversal line, then pair of interior angles are _____

3. Two vertically opposite angles cannot be_____
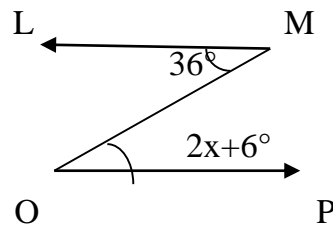
4. Find the value of x, if p || q

5. The arms of two angles are parallel. If ∠GEF = 47.5, Then find the ∠ABC, ∠DGC and ∠EGC.
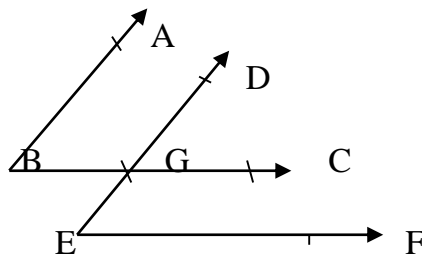
6. In the given figure, *l* || *m* and *p* and *q* are the transversal lines. Find the value of ∠ a, ∠ b, ∠c, ∠d, ∠e and ∠f.

l   *m*

80°   d   *p*

a   75°

b   e   *q*

c
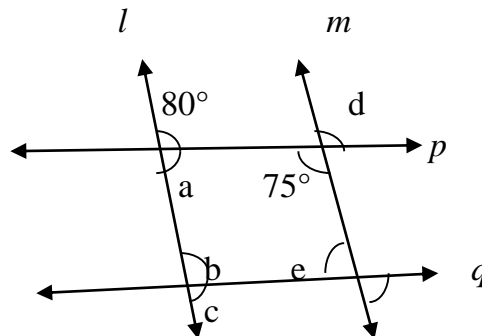
7. In the given figure two lines are parallel. Find the value of x.

L   M

36°

$2x+6°$

O   P

8. In the given figure, lines *m* and *n* are parallel lines, Identify
   i)   The pair of corresponding angles.
   ii)   The pair of alternate Interior angles.
   iii)   The pair of interior angles on the same side of transversal.
   iv)   The pair of vertically opposite angles.

p

1   2   *m*
4   3

5   6
              n
7   8
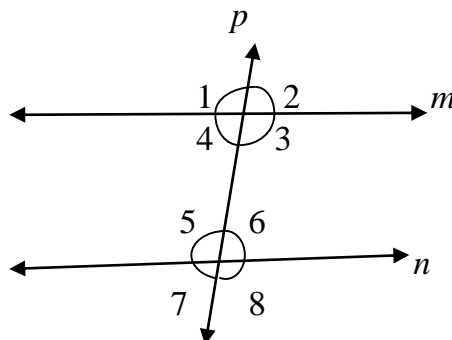
9. In the given figure decide whether line *1 || 2*, if "*t*" is the transversa line intersects lines *1* and *2*.
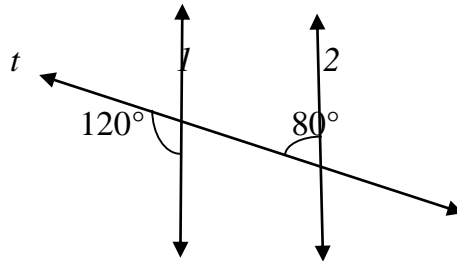
10. If m ||n and *t* is the transversal line, then find the value of x, y, z.
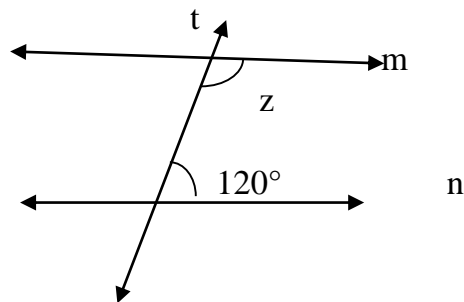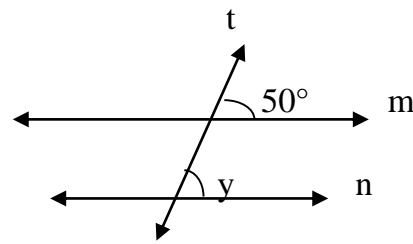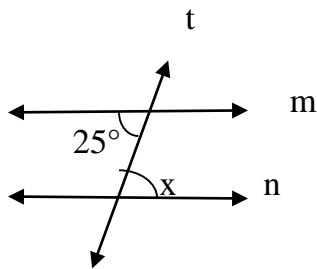
BLOCK 20: Adding and Subtracting of Rational Numbers

11. The additive inverse of i) $\frac{3}{5}$ ii) $\frac{-15}{-17}$ iii) $\frac{13}{-17}$

12. Add using the number lines : $\frac{2}{5} + \frac{7}{5}$

13. The sum of $\frac{7}{8}$ and $\frac{-3}{8}$ is

14. Subtract $\frac{9}{17}$ *from* $\frac{15}{17}$

15. Add the following:

     i) $\frac{-7}{11}$ and $\frac{-1}{5}$

ii) $\frac{3}{7}, \frac{-11}{-14}$ and $\frac{8}{21}$

16. Subtract the following:

   iii) $\frac{11}{-13}$ from $\frac{1}{2}$

   iv) $\frac{5}{8}$ from $\frac{-11}{12}$

17. What should be added to $\frac{-11}{19}$, to make the sum $\frac{4}{5}$?

18. A hot air balloon ascend in the air and reached height of $11\frac{1}{2}$ m from the sea level and descends by $7\frac{1}{3}$ m. How much above it is sea from level now?

19. On a fruit stall, $\frac{1}{4}$ are bananas, $\frac{1}{5}$ are oranges, $\frac{1}{3}$ are kiwis. The remaining are watermelons. What part of the stall has watermelon?

20. Simplify:

   i) $\frac{16}{20} - \frac{4}{5}$

   ii) $\frac{-2}{7} - (\frac{-7}{15})$

   iii) $-3 + \frac{4}{7}$

   iv) $\frac{-11}{15} - \left(\frac{13}{25}\right)$

BLOCK 21: Multiplying and Dividing of Rational Numbers

21. the multiplicative inverse of $\frac{-17}{19}$

22. Multiply i) $\frac{-4}{5}$ x 2 using number line

   ii) $\frac{2}{7}$ using number line

23. Multiply: i) $\frac{-7}{14}$ x $\frac{4}{8}$ ii) $\frac{16}{20}$ x $\frac{3}{-9}$

   iii) $3\frac{1}{4}$ x $\frac{10}{40}$ iv) $\frac{3}{29}$ by 57

24. Divide :

i) $\frac{12}{38} \div \frac{-11}{13}$

ii) $\frac{75}{2} \div 15$

iii) $\frac{-8}{9} \div \frac{-4}{15}$

iv) $\frac{14}{36} \div \frac{1}{18}$

25. the product of two rational numbers is $\frac{5}{12}$. If one of the numbers is $\frac{-45}{16}$. Find the other rational number.

26. A car covered a distance of $11\frac{1}{5}$ Km in 12 hours. Find the speed of the car ?

27. An equilateral triangle has a side of $3\frac{1}{7}$ cm. Find the perimeter of the triangle.