Assignment 1   Integers

Answer the following questions :

1. Which temperature is lower : + 5°C or – 5°C? _____

2. Write a pair of integers whose sum is – 3. _____

3. Find + 3 + (– 4). _____

4. (– 10) × (– 12) = _____

5. $a \times b$ is an integer for all integers a and b. Is it true? _____

6. Fill in the box : 144 ÷ ☐ = – 12

7. Fill in the box : 17 + ☐ = 0

8. 4 × (– 3) = _____

9. (– 3) × (– 3) = _____

10. Is it possible that the product of a positive integer and a negative integer is zero? _____

11. – 15 + 10 = _____

12. Divide – 32 by 8. _____

13. Find the product of (– 7) × (– 5) × 0. _____

14. If a × (– 1) = – 30 is the integer a positive or negative? _____

15. (– 25) × 35 × 4 = _____

16. Determine the integer whose product with (– 1) is –22. _____

17. Replace the blank with an integer to make following statement true.

    – 3 × _____ = 27

18. 9 × (– 3) × (– 6) = _____

19. Is 5 – (– 3) the same as (– 3) – 5? _____

20. Which integer is equal to its additive inverse? _____

Date : ....   Teacher's Signature : ....

Answer the following questions :

1. For any integer a, what is $(-1) \times a$ equals to? _____

2. Write true or false : $-13 > -8 - (-2)$. _____

3. Find the integer a such that $a + (-5) = 0$. _____

4. Which integer is equal to its additive inverse? _____

5. Fill in the box : $-8 \times 7 = \boxed{} \times -8$.

6. $(-10) \times 0 \times (-18) =$ _____

7. Is the collection of integers associative under division? _____

8. Determine the integer whose product with -1 is -51. _____

9. Are the integers commutative under division? _____

10. Find : $5 + (-1) - (-3)$. _____

11. By which integer 35 must be divided to get the quotient -35? _____

12. When we divide a positive integer by a negative integer, the result so obtained is _____

13. Is $(-9) \div 3$ the same as $3 \div (-9)$? _____

14. Fill in the box : $20 \div \boxed{} = -2$.

15. Fill in the box : $-21 + [9 + (-40)] = (-21 + 9) + \boxed{}$

16. $[(-36) \div 12] \div 3 =$ _____

17. What should be multiplied to -8 to get 0 as the result? _____

18. The product of 10 negative integers is a _____ integer.

19. $10 \times [6 + (-2)] =$ _____

20. $(-1) \times (-2) \times (-3) \times 4 =$ _____

Date : ....   Teacher's Signature : ....

Answer the following questions :

1. Find the integer a such that $-5 + a = 0$. _____

2. Multiply (-4) by (-8). _____

3. Find the integer whose product with -2 is 32. _____

4. $8 + (-4) =$ _____

5. $-25 + 10 =$ _____

6. By which integer 20 must be divided to get the quotient -20? _____

7. Find the value of $(12 - 48) \div 6$ _____

8. Fill in the box : $\boxed{} \times 1 = -29$.

9. Fill in the box : $(14 \times 15) \times (-16) = \boxed{} \times [15 \times (-16)]$

10. Multiply $(-25) \times 78 \times (-4)$. _____

11. Use the sign of $>$ or $<$ in the box to make the following statement true.

    $(-8) + (-4) \boxed{} (-8) - (-4)$

12. Write down a pair of integers whose difference is -5. _____

13. $(-316) \times (-1) =$ _____

14. $5 \times$ _____ $= -35$

15. $(-20) \div$ _____ $= 5$

16. Find $13 \div [(-2) + 1]$. _____

17. $18 \times [7 + (-3)] =$ _____

18. $5 \times 53 \times (-20) =$ _____

19. $(-5) + ($ _____ $) = (-8) + ($ _____ $)$

20. $3 +$ additive inverse of $3 =$ _____

Date : ....   Teacher's Signature : ....

Tick (✓) mark the correct answer in each case :

1. The product of the smallest positive integer and greatest negative integer is :

   (i) 1   (ii) – 1   (iii) 0   (iv) not determinable

2. The additive inverse of – 7 is :

   (i) – 7   (ii) + 7   (iii) – 1   (iv) 1

3. The value of – 5 – 7 is :

   (i) 12   (ii) – 12   (iii) – 2   (iv) 2

4. The value of 0 ÷ (– 100) is :

   (i) 0   (ii) 1   (iii) not determinable   (iv) none of these

5. (– 26) + (– 27) is equal to

   (i) –1   (ii) 1   (iii) 53   (iv) – 53

6. The multiplicative identity of integers is :

   (i) 0   (ii) – 1   (iii) 1   (iv) none of these

7. The value of $16 + \overline{6 - 5}$ is :

   (i) 5   (ii) 6   (iii) 16   (iv) none of these

8. The integer which is its own additive inverse is :

   (i) 1   (ii) – 1   (iii) 0   (iv) none of these

9. – 96 ÷ (– 12) is equal to :

   (i) – 8   (ii) 8   (iii) 1   (iv) none of these

10. (– 25) × (10) × (– 4) is equal to :

   (i) – 1000   (ii) 1000   (iii) 100   (iv) – 100
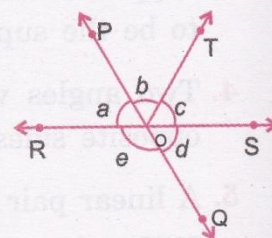
Date : ....
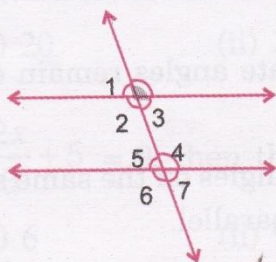
Teacher's Signature : ....

Answer the following questions :

1. What is the measure of the complement of 65°? _____
2. What will be the measure of the supplement of 55°? _____
3. Can two obtuse angles be supplementary? _____
4. Find the angle which is equal to its complement. _____
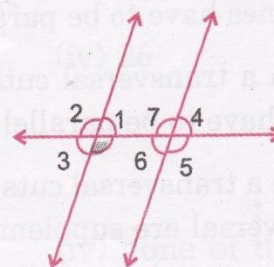5. Observe the adjoining figure and answer the following questions :

    (i) Is ∠b adjacent to ∠c? _____

    (ii) Is ∠POT adjacent to ∠POS? _____

    (iii) Do ∠POR and ∠POS form a linear pair? _____

    (iv) Is ∠b vertically opposite to ∠e? _____

    (v) Are ∠e and ∠d supplementary? _____

6. Identify parallel and intersecting lines :

    (i) Tracks of a railway line. _____

    (ii) Edges of a vertical wall and the floor of a room. _____

    (iii) Opposite edges of your book. _____

7. How many lines can you draw through a given point? _____

8. How many lines can you draw through two given points? _____

9.   (i) What is the maximum number of points of intersection of three lines in a plane? _____

    (ii) What is the minimum number of points of intersection of three lines in a plane? _____

10. In the diagram below, write down the angle that corresponds to the shaded angle.
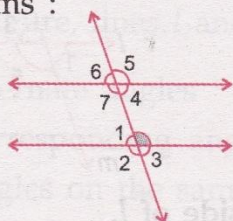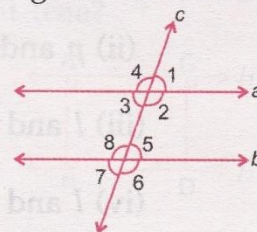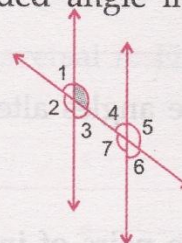
    (i) ....   (ii) ....

Date : ....   Teacher's Signature : ....

Answer the following questions :

1. Can two rays be parallel? _____

2. Find the angle which is double of its supplement. _____

3. If one angle of a linear pair is a right angle, what kind of angle is the other? _____

4. In the adjoining figure, identify

   (i) the pairs of corresponding angles. _____

   (ii) the pairs of alternate interior angles. _____

   (iii) the pairs of interior angles on the same side of the transversal. _____

   (iv) the vertically opposite angles. _____

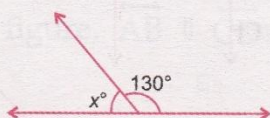5. Write down the angle which is alternate to shaded angle in the following diagrams :

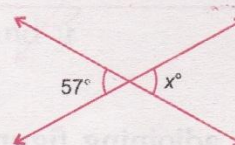   (i) ....   (ii) ....

6. If one angle of a linear pair is an acute angle, what kind of angle is the other? _____

7. If one angle of a linear pair is an obtuse angle, what kind of angle is the other? _____

8. An angle is greater than 45°. Is its complementary angle greater than 45° or equal to 45° or less than 45°? _____

9. Find the measure of x in the following figures : _____

   130°

   $x°$

   57° $x°$

   (i) ....   (ii) ....

10. The difference in the measures of two complementary angles is 12°. Find the measures of the angles. _____

Date : ....   Teacher's Signature : ....

Answer the following questions :
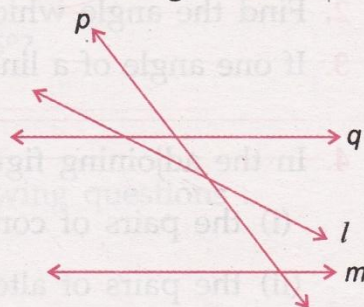
1. In the adjoining figure, name the transversal to the following lines :

    (i) *l* and *m* _____

    (ii) *p* and *q* _____

    (iii) *l* and *p* _____
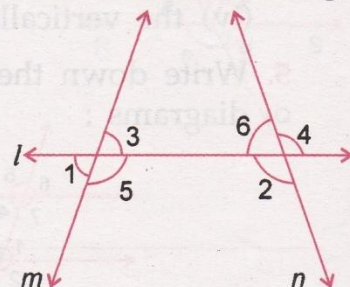
    (iv) *l* and *q* _____

2. In the adjoining figure, *l* is a transversal to lines *m* and *n*. Write the following :
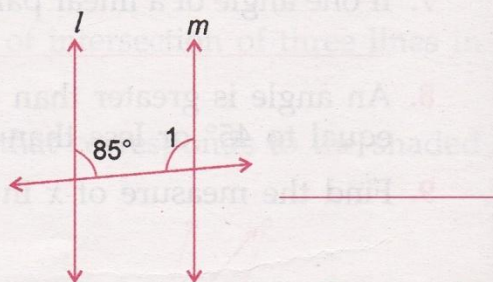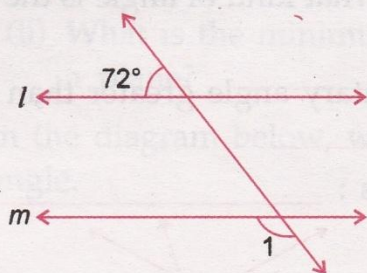
    (i) The angles corresponding to $\angle 1$ and $\angle 3$.

    _____

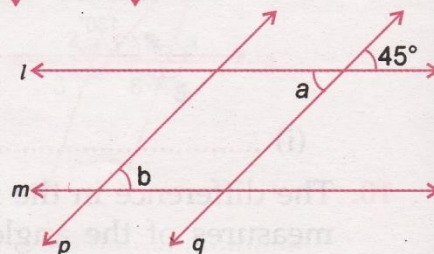   (ii) The angles alternate to $\angle 3$ and $\angle 6$.

    _____

    (iii) The pairs of interior angles on the same side of *l*.

3. In each figure *l* ‖ *m*. Find the measure of $\angle 1$ in each.

    72°

    85°

4. In the adjoining figure, *l* ‖ *m* and *p* ‖ *q*.
    Find the measure of angles marked *a* and *b*.

    45°

Date : ....   Teacher's Signature : ....

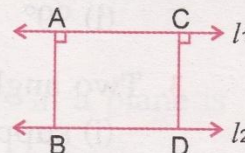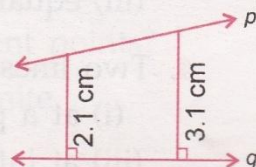## Answer the following questions :

1. Using symbols write the following statement : 'line AB is parallel to line CD'. _____

2. Two lines in a plane which never intersect, are parallel. Is it true?

   _____

3. In the adjoining figure, $l_1 \parallel l_2$ If AB = 3.4 cm, find CD.

   _____

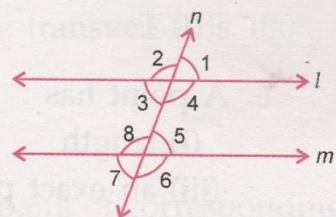4. Are lines p and q shown in the adjoining figure parallel?

5. In the figure, lines l and m are intersected by transversal n. Find a pair of :

   (i) alternate angles _____

   (ii) corresponding angles _____

   (iii) angles on the same side of the transversal.
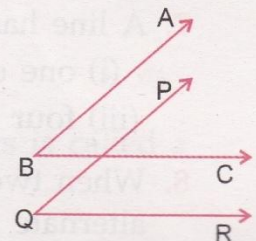
   _____

6. In the adjoining figure, name the rays
   (i) parallel to ray AB. _____
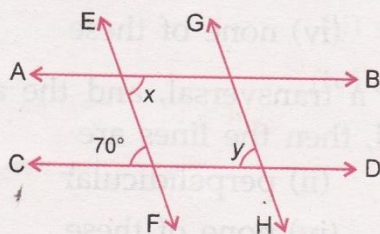   (ii) parallel to ray BC. _____
   (iii) transversal to ray AB and ray PQ. _____

7. Write true or false : If $l \parallel m$ and $m \parallel n$, then $l \parallel n$. _____

8. In the figure, $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$ and $\overleftrightarrow{EF} \parallel \overleftrightarrow{GH}$. Find x and y.

Date : ....

Teacher's Signature : ....

Tick (✓) mark the correct answer in each case :

1. Two angles are supplementary if the sum of their measures is
    (i) 90°   (ii) 180°   (iii) 360°   (iv) 100°

2. Two angles are complementary if the sum of their measures is
    (i) 90°   (ii) 180°   (iii) 360°   (iv) 100°

3. Two angles forming a linear pair are
    (i) supplementary   (ii) complementary
    (iii) equal   (iv) none of these

4. Two lines intersect in a plane :
    (i) at a point   (ii) at three points
    (iii) at infinite number of points (iv) at two points

5. How many lines can be drawn to pass through two different points?
    (i) 1   (ii) 2   (iii) 3   (iv) infinite

6. A point has :
    (i) length   (ii) breadth
    (iii) an exact position   (iv) one end-point.

7. A line has
    (i) one end point   (ii) two end points
    (iii) four end points   (iv) no end points

8. When two parallel lines are intersected by a transversal, how many pairs of alternate interior angles are formed?
    (i) 1   (ii) 2   (iii) 3   (iv) 4

9. Two opposite edges of your notebook are :
    (i) parallel   (ii) perpendicular
    (iii) concurrent   (iv) none of these

10. If two lines are intersected by a transversal, and the angles of any pair of corresponding angles are equal, then the lines are
    (i) parallel   (ii) perpendicular
    (iii) concurrent   (iv) none of these