



RAMAGYA SCHOOL, NOIDA

IX/MATHS/2018-19

OLYMPIAD PRACTICE WORKSHEET

(Concept based)

1. If a point C lies between A and B, then $AC + BC =$ _____
(A) $2AB$ (B) AB (C) $2BC$ (D) $1/2AB$
2. A solid has _____
(A) 0 dimension (B) 1 dimension (C) 2 dimensions (D) 3 dimensions
3. According to Euclid's axioms, the _____ is greater than the part.
(A) half (B) large (C) whole (D) none of these
4. Find the number of dimensions a line has.
(A) 0 (B) 1 (C) 2 (D) 3
5. Which of the following options has one fixed end point and can be extended in the other direction indefinitely?
(A) a ray (B) a line (C) a line segment (D) all of these

(Application based)

6. Rectilinear figure is formed by _____
(A) planes (B) points (C) straight lines (D) none of these
7. If the angles of a triangle are in the ratio 2 : 3 : 4, then the triangle formed will be
(A) right angled triangle (B) isosceles triangle (C) scalene triangle (D) obtuse angled triangle
8. The measure of an angle is four times the measure of its supplementary angle. Then the angle is _____
(A) 36° (B) 144° (C) 180° (D) 72°
9. The angles which differ by 38° and are complimentary to each other are
(A) $38^\circ, 52^\circ$ (B) $71^\circ, 109^\circ$ (C) $26^\circ, 154^\circ$ (D) $64^\circ, 26^\circ$
10. If two complimentary angles are in the ratio 4 : 5, then the angles are _____
(A) $50^\circ, 45^\circ$ (B) $40^\circ, 50^\circ$ (C) $25^\circ, 55^\circ$ (D) $35^\circ, 45^\circ$

(Value based)

11. Which of the following statement is correct?
(A) There exists only one circle with center at a given point
(B) There exists a point through which no line can pass
(C) Two parallel lines cannot have a common point
(D) All of these

12. Fill in the blanks:

- (a) Angle forming a linear pair are P angles
 (b) The angle between the bisectors of the two acute angles of a right angle triangle is Q
 (c) Sum of interior angles of a quadrilateral is R
- | P | Q | R |
|-------------------|------|------|
| (A) Supplementary | 135° | 360° |
| (B) Complementary | 135° | 720° |
| (C) Supplementary | 90° | 180° |
| (D) Complementary | 90° | 360° |

13. Which of the following statements is correct?

- (A) If two angles forming a linear pair, then each of these angles is of the measure 90°
 (B) Angles forming a linear pair can both be acute angles
 (C) Both of the angles forming a linear pair can be obtuse angles
 (D) Bisector of the adjacent angles forming a linear pair form a right angle

14. Which of the following needs a proof?

- (A) an axiom (B) a definition (C) a postulate (D) a theorem

15. Two distinct intersecting lines cannot be parallel to the _____ line

- (A) same (B) different (C) both (A) and (B) (D) None of these

(Logical Reasoning)

16. Arrange the given word in the sequence in which they occur in the dictionary and then choose the correct sequence.

1. Page 2. Pagan 3. Palisade 4. Pageant 5. Palate
 (A) 1, 4, 2, 3, 5 (B) 2, 4, 1, 3, 5 (C) 2, 1, 4, 5, 3 (D) 1, 4, 2, 5, 3

17. Mohit was looking for his father. He went 90 metres in the East before turning to his right. He went 20 metres before turning to his right again to look for his father at his uncle's place 30 metres from this point. His father was not there. From here he went 100 metres to the North before meeting his father in a street. How far did the son meet his father from the starting point?

- (A) 80 metres (B) 100 metres (C) 140 metres (D) 260 metres

18. If + stands for 'division', × stands for 'addition', – stands for 'multiplication' and ÷ stands for 'subtraction', then which of the following equations is correct?

- (A) $36 \times 6 + 7 \div 2 - 6 = 20$ (B) $36 \div 6 + 3 \times 5 - 3 = 45$
 (C) $36 + 6 - 3 \times 5 \div 3 = 24$ (D) $36 - 6 + 3 \times 5 \div 3 = 74$

19. In each of the four groups of letters, one is different from others. Select the odd one out

- (A) aBC (B) BaC (C) abC (D) BCa

20. In a certain code, PAPER is written as SCTGW. How is MOTHER written in that code?

- (A) PQXKJV (B) PQVJGT (C) PQXJJT (D) ORVLGW