Practical Geometry

Question 1.
How many lines can draw from a given point.
(a) 1
(b) 2
(c) Infinite
(d) None of these

Answer: (c) Infinite

Question 2.
How many parallel lines can draw from a outside point of a given line ?
(a) 1
(b) 2
(c) Infinite
(d) None of these

Answer: (a) 1

Question 3.
Which among the following is used to construct a triangle?
(a) The lengths of the three sides.
(b) The perimeter of the triangle.
(c) The measures of three angles.
(d) The names of three vertices.

Answer: (a) The lengths of the three sides.

Question 4.
How many parallel lines can be drawn passing through a point, not on the given line?
(a) 2
(b) 1

(c) 3
(d) 0

Answer: (b) 1

Question 5.
In which of the following cases is the construction of a triangle not possible?
(a) Measures of 3 sides are given.
(b) Measures of 2 sides and an included angle are given.
(c) Measures of 2 angles and a side are given.
(d) Measures of 3 angles are given.

Answer: (d) Measures of 3 angles are given.

Question 6.
dentify the true statement.
(a) A triangle with 3 equal sides is isosceles.
(b) A triangle with a 110o angle is right angled.
(c) A triangle with 3 acute angles is acute angled.
(d) A triangle with 2 equal sides is equilateral.

Answer: (c) A triangle with 3 acute angles is acute angled.

Question 7.
A Choose the correct option in which a triangle CANNOT be constructed with the given lengths of sides.
(a) 3 cm, 4 cm, 5 cm
(b) 7 cm, 6 cm, 5 cm
(c) 10 cm, 7 cm, 2 cm
(d) 12 cm, 8 cm, 6 cm

Answer: (c) 10 cm, 7 cm, 2 cm

Question 8.
Which is the longest side in the triangle ABC right angled at B?
(a) BC
(b) AC
(c) AB
(d) None of these

Answer: (b) AC

Question 9.
ΔPQR is a triangle right-angled at P. If PQ = 3 cm and PR = 4 cm, find QR.
(a) 3 cm
(b) 7 cm
(c) 5 cm
(d) 8 cm

Answer: (c) 5 cm

Question 10.
Which is the longest side in the triangle PQR right angled at P?
(a) PR
(b) PQ
(c) QR
(d) None of these

Answer: (c) QR

Question 11.
The sum of the lengths of any two sides of a triangle is _____ the third side of the triangle.
(a) less than
(b) doubled
(c) greater than
(d) half

Answer: (c) greater than

Question 12.
A/an _____ connect a vertex of a triangle to the mid-point of the opposite side.
(a) altitude
(b) vertex
(c) median
(d) None of these

Answer: (c) median

Question 13.
In the Pythagoras property, the triangle must be _____ .
(a) acute-angled
(b) obtuse-angled
(c) right-angled
(d) None of these

Answer: (c) right-angled

Question 14.
Which is the longest side of a right triangle?
(a) Hypotenuse
(b) Base
(c) Perpendicular
(d) None of these

Answer: (a) Hypotenuse

Question 15.
A triangle in which all three sides are of equal lengths is called _____.
(a) Equilateral
(b) Scalene
(c) Isosceles
(d) None of these

Answer: (a) Equilateral

Question 16.
A triangle can be drawn if the hypotenuse and a _____ in the case of a right-angled triangle.
(a) base
(b) hypotenuse
(c) leg
(d) None of these

Answer: (c) leg

Question 17.
Sum of the lengths of any two sides of a triangle is greater than the length of the ____.
(a) first side
(b) second side

(c) third side
(d) none of these

Answer: (c) third side

Question 18.
A triangle can be drawn if ____ angles and one side given.
(a) 2
(b) 3
(c) 4
(d) None of these

Answer: (a) 2

Question 19.
he exterior angle of a triangle is _____ in measure to the sum of interior opposite angles.
(a) equal
(b) unequal
(c) different
(d) None of these

Answer: (a) equal

Question 20.
ΔABC is right-angled at C. If AC = 5 cm and BC = 12 cm find the length of AB.
(a) 17 cm
(b) 7 cm
(c) 13 cm
(d) None of these

Answer: (c) 13 cm

Fill in the blanks:

1. The exterior angle of a triangle is equal in measure to the sum _____ of opposite angles.

Answer: Interior

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2. The total measure of the three angles of a triangle is _____.

Answer: 180°

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3. Sum of the lengths of any two side of a triangle is _____ than the length of the third side.

Answer: greater

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4. In any right angled triangle, the square of the length of hypotenuse is equal to the sum of the _____ of the lengths of the other two sides.

Answer: squares

To construct a triangle of following sets of measurement given.

5. _____ sides.

Answer: three

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6. Two sides and the angle _____ them.

Answer: between

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7. Two angles and the side _____ them.

Answer: between

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8. The hypotenuse and a _____ in the case of a right-angle triangle.

Answer: legs

Below are given the maximum of certain sides and angles of triangles. Identify those can be constructed and these can not he constructed.

Question 1.
ΔABC $m\angle A = 85°, m\angle B = 115$, $AB = 5cm$

Answer: No

Question 2.
ΔPQR m∠Q = 30,m∠R = 60, QR = 4.7cm

Answer: Yes

Question 3.
ΔABC m∠A = 70,m∠B = 50, AC = 3cm

Answer: Yes

Question 4.
ΔLMN m∠L = 60, m∠N = 120,LM = 5cm

Answer: No

Question 5.
ΔABC BC = 2cm, AB = 4cm, AC = 2cm

Answer: No

Question 6.
ΔPQR PQ = 3.5cm, QR = 4cm, PR = 3.5cm

Answer: Yes

Question 7.
ΔXYZ XY = 3cm, YZ= 4cm, XZ = 5cm

Answer: Yes

Question 8.
ΔDEF DE = 4.5cm, EF = 5.5cm, DF = 4cm

Answer: Yes
