

**Class: 7**  
**Subject: Mathematics**  
**Topic: Integers**  
**No. of Questions: 20**  
**Duration: 60 Min**  
**Maximum Marks: 60**

1. How many medians a triangle can have?
- A. 2
  - B. 3
  - C. 1
  - D. None of these

ANS. B

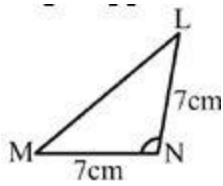
In geometry, a median of a triangle is a line segment joining a vertex to the midpoint of the opposing side. Every triangle has exactly three medians, one from each vertex, and they all intersect each other at the triangle's centroid.

2. A/an \_\_\_\_\_ connect a vertex of a triangle to the mid-point of the opposite side.
- A. vertex
  - B. altitude
  - C. median
  - D. None of these

ANS. C

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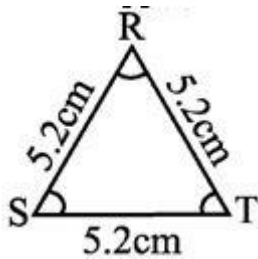
3. Angle opposite to the side LM of  $\triangle LMN$  is



- A.  $\angle N$
- B. None of these
- C.  $\angle M$
- D.  $\angle L$

ANS. A

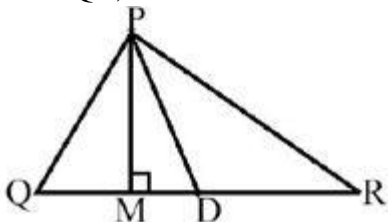
4. Vertex opposite to the side RT of  $\triangle RST$  is



- A. R
- B. None of these
- C. T
- D. S

ANS. D

5. In  $\triangle PQR$ , PM is

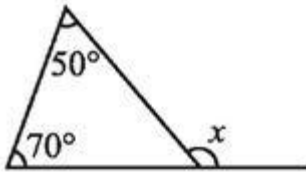


- A. side
- B. median
- C. bisector
- D. altitude

ANS. D

In geometry, an altitude of a triangle is a line segment through a vertex and perpendicular to (i.e. forming a right angle with) a line containing the base (the opposite side of the triangle). This line containing the opposite side is called the extended base of the altitude.

6. Find the value of  $x$  in the adjoining figure.



- A.  $70^\circ$
- B.  $50^\circ$
- C.  $60^\circ$
- D.  $120^\circ$

ANS. D

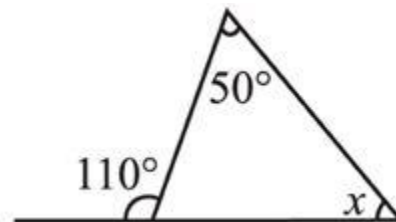
Solution:  $x = 50^\circ + 70^\circ = 120^\circ$  {Exterior angle = Sum of interior opposite angles}

7. Find the value of  $x$ .

- A.  $50^\circ$
- B.  $110^\circ$
- C.  $70^\circ$
- D.  $60^\circ$

ANS. D

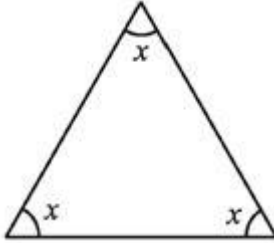
Solution:  $x + 50^\circ = 110^\circ$ ; or,  $x = 60^\circ$



8. The sum of the lengths of any two sides of a triangle is \_\_\_\_\_ the third side of the triangle.
- A. less than
  - B. double
  - C. half

- D. greater than  
ANS. D  
By property

9. Find the value of  $x$  in this figure.



- A. None of these  
B.  $50^\circ$   
C.  $60^\circ$   
D.  $65^\circ$

Solution: C  $x = 60^\circ$

Sum of interior angles of a triangle is  $180^\circ$ .

Thus,  $3x = 180^\circ$ ;  $x = 60^\circ$

10. A triangle in which two altitudes of the triangle are two of its sides is \_\_\_\_\_.

- A. None of these  
B. right-angled triangle  
C. acute-angled triangle  
D. obtuse-angled triangle

ANS. B

11. A \_\_\_\_\_ is a simple closed curve made of three line segments.

- A. None of these  
B. quadrilateral  
C. triangle  
D. angle

ANS. C

12. The sum of interior opposite angles is \_\_\_\_\_, when the exterior angle is right angle.

- A.  $30^\circ$
- B. None of these
- C.  $60^\circ$
- D.  $90^\circ$

ANS. D

13. A triangle in which Two sides are of equal lengths is called an \_\_\_\_\_.

- A. isosceles
- B. equilateral
- C. None of these
- D. Scalene

ANS. A

14. Determine whether the triangle whose lengths of sides are 3 cm, 4 cm, 5 cm is a \_\_\_\_\_.

- A. right-angled
- B. obtuse-angled
- C. None of these
- D. acute-angled

ANS. A

Solution:  $3^2 + 4^2 = 5^2$  [ By Pythagoras theorem]

15. A median wholly lie in the \_\_\_\_\_ of the triangle.

- A. interior
- B. on
- C. exterior
- D. None of these

ANS. A

16. The side opposite to the right angle is called the \_\_\_\_\_ of the right-angled triangle.

- A. hypotenuse
- B. None of these
- C. perpendicular

D. base  
ANS. A

17. The three angles of a triangle are in the ratio 1:2:1. Find all the angles of the triangle.

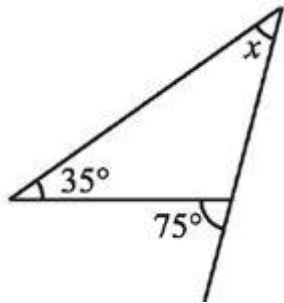
- A.  $45^\circ, 90^\circ, 45^\circ$
- B. None of these
- C.  $60^\circ, 90^\circ, 30^\circ$
- D.  $40^\circ, 90^\circ, 50^\circ$

ANS. A

Solution:  $1x + 2x + 1x = 180^\circ$

$x = 45^\circ$

18. Find the value of  $x$  in the below figure.



- A.  $50^\circ$
- B.  $40^\circ$
- C.  $60^\circ$
- D.  $80^\circ$

ANS. C

Solution:  $35^\circ + x = 75^\circ$ ; or,  $x = 40^\circ$  [ Sum of the interior angles = exterior opposite angle ]

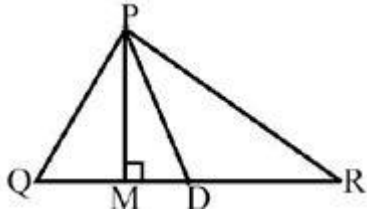
19. Two angles of a triangle are  $30^\circ$  and  $80^\circ$ . Find the third angle.

- A.  $90^\circ$
- B.  $100^\circ$
- C.  $70^\circ$
- D.  $80^\circ$

ANS. C

Solution:  $180^\circ - (30^\circ + 80^\circ) = 70^\circ$  [Sum of the angles of a triangle  $180^\circ$ ]

20. In  $\triangle PQR$ ,  $PD$  is



- A. Side
  - B. Median
  - C. Altitude
  - D. Bisector
- ANS. B

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