1. In an equilateral triangle ABC, if AD⊥BC,then

(a) $5AB^2 = 4AD^2$.

(b) $4AB^2 = 3AD^2$.

(c) $3AB^2 = 4AD^2$.

(d) $2AB^2 = 3AD^2$.

► (c) $3AB^2 = 4AD^2$.

2. In a triangle ABC, AC= √180, AB = 6, BC = 12. What is ∠B = ?

(a) 90°

(b) 30°

(c) 45°

(d) 60°

► (a) 90°

3. In right triangled ABC right angled at B, a line DE is drawn through the mid point D of AB and parallel to BC. If AB = 9 cm, BC = 12 cm. AE = ?

(a) 13 cm

(b) 10 cm

(c) 8.5 cm

(d) 7.5 cm

► (d) 7.5 cm

4. If the legs of an isosceles right triangle are 5 cm long, approximate the length of the hypotenuse to the nearest whole number.

(a) 9 cm

(b) 7 cm

(c) 70 cm

(d) 90 cm

► (b) 7 cm.

5. A semicircle is drawn on AC. Two chords AB and BC of length 8 cm and 6 cm respectively are drawn in the semicircle. What is the measure of the diameter of the circle?

(a) 14 cm.

(b) 10 cm.

(c) 12 cm.

(d) 11 cm.

► (b) 10 cm.

6. Three numbers form a Pythagorean triplet. Two of them are 15 and 17 where 17 is the largest of them. The third number is

(a) 8

(b) 12

(c) 13

(d) 5

► (a) 8

7. D and E are respectively the points on the sides AB and AC of a triangle ABC such that AD = 3 cm, BD = 5 cm, BC = 12.8 cm and DE || BC. Then length of DE (in cm) is

(a) 4.8 cm

(b) 7.6 cm

(c) 19.2 cm

(d) 2.5 cm

► (a) 4.8 cm

8. In triangle PQR length of the side QR is less than twice the length of the side PQ by 2 cm. Length of the side PR exceeds the length of the side PQ by 10 cm. The perimeter is 40 cm. The length of the smallest side of the triangle PQR is :

(a) 6 cm

(b) 8 cm

(c) 7 cm

(d) 10 cm

► (b) 8 cm

9. Which of the following is a Pythagorean triplet ?

(a) (36,18,43)

(b) (15,20,25)

(c) (3,12,13)

(d) (24,25,26)

► (b) (15,20,25)

10. If the sum of the length of the legs of a right triangle is 49 cm and the hypotenuse is 41 cm, find its shortest side.

(a) 19 cm

(b) 40 cm

(c) 4 cm

(d) 9 cm

► (d) 9 cm

11. A boy is trying to catch fish sitting at a height of 12 m from the surface of the water. A big fish is at a horizontal distance of 5 m from him. What should be the length of his string to get the fish?

(a) 10

(b) 13

(c) 7

(d) 15

► (b) 13

12. The length of the side of a rhombus whose diagonals are of lengths 24 cm and 10 cm is

(a) 17 cm.

(b) 14 cm.

(c) 13 cm.

(d) 16 cm.

► (c) 13 cm.

13. In ΔABC, AB = 5 cm, AC = 7 cm. If AD is the angle bisector of $\angle A$. Then BD : CD is:

(a) 25 : 49

(b) 49 : 25

(c) 6 : 1

(d) 5 : 7

► (d) 5 : 7

14. The monitors of computers are measured along the diagonal. What is the size of the largest monitor that can be placed in a space measuring 17″ x 21″?

(a) 28″

(b) 25″

(c) 26″

(d) 27″

► (d) 27″

15. Two isosceles triangles have equal angles and their areas are in the ratio 16 : 25. Then, the ratio of their corresponding heights is

(a) 3/5

(b) 5/4

(c) 5/7

(d) 4/5

► (d) 4/5

16. Triangle ABC is such that AB = 3 cm, BC = 2 cm and CA = 2.5 cm. Triangle DEF is similar to ΔABC. If EF = 4 cm, then the perimeter of ΔDEF is :

(a) 7.5 cm

(b) 15 cm

(c) 22.5 cm

(d) 30 cm

► (b) 15 cm

17. Three squares are based on the sides of a right angled triangle. The area of the two smaller ones are 144 sq. cm and 256 sq. cm. What is the area of the third one?

(a) 625 sq. cm

(b) 361 sq. cm

(c) 400 sq. cm

(d) 900sq. cm

► (c) 400 sq. cm

18. The line segments joining the mid points of the sides of a triangle form four triangles each of which is :

(a) Similar to the original triangle

(b) Congruent to the original triangle

(c) An equilateral triangle

(d) An isosceles triangle

► (a) Similar to the original triangle

19. Two friends A and B start from the same point in the Eastern and Northern directions at the same time. How far are they from each other when A has travelled 5 km and B has travelled 12 km. distance?

(a) 8 km

(b) 17 km

(c) 10 km

(d) 13 km

► (d) 13 km

20. ABC is a triangle and DE is drawn parallel to BC cutting the other sides at D and E. If AB = 3.6 cm, AC = 2.4 cm and AD = 2.1 cm, then AE is equal to :

(a) 1.4 cm

(b) 1.8 cm

(c) 1.2 cm

(d) 1.05 cm

► (a) 1.4 cm

21. If $\Delta ABC \sim \Delta EDF$ and ΔABC is not similar to ΔDEF, then which of the following is not true?

(a) BC . DE = AB .EF.

(b) AB . EF = AC . DE.

(c) BC . EF = AC . FD.

(d) BC . DE = AB .FD.

► (a) BC . DE = AB .EF.

22. Triangle ABC is such that AB = 9 cm, BC = 6 cm, AC = 7.5 cm. Triangle ΔDEF is similar to ABC, If EF = 12 cm then DE is :

(a) 6 cm

(b) 16 cm

(c) 18 cm

(d) 15 cm

► (c) 18 cm

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1. Two figures are said to be ————–, if they have the same shape and the same size.

A. Similar
B. Congruent
C. Equal

2. Two figures having the same shape and not necessarily the same size are called————–

A. Similar figures
B. Congruent figures
C. Equal figures

3. Which of the following statements is false?

A. All congruent figures are similar
B. The similar figures need not be congruent.
C. All similar figures are congruent

4. All circles are ————–

A. Equal
B. Congruent
C. Similar

5. All ————– triangles are similar.

A. Scalene
B. Isosceles
C. Equilateral

6. Two polygons of the same number of sides are similar, if their corresponding angles are ———– and their corresponding sides are ————

A. equal, proportional
B. equal, equal
C. Proportional, equal

7. The ratio of any two corresponding sides in two equilateral triangles is always the ————————

A. Same.
B. Different
C. Greater

8. In a right triangle, the square of the hypotenuse is ————– to the sum of the squares of the other two sides.

A. Greater
B. Lesser
C. Equal

9. In a triangle, if square of one side is equal to the sum of the squares of the other two sides, then the angle opposite the first side is a ——————

A. Acute angle

B. Obtuse angle
C. Right angle

10. In a rectangle length = 4 cm, breadth = 3 cm. Then its diagonal is ————

A. 5 cm
B. 6cm
C. 7 cm

11. If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio. This theorem is called ———————

A. Gauss Theorem
B. Pythagoras Theorem
C. Thales Theorem (Basic Proportionality Theorem)

12. In two triangles ABC and PQR, <A = <P = 60, <B = <Q = 80, <C = <R = 40.The similarity criterion used here is ———————

A. SSS
B. AAA
C. SAS

13. Sides of triangles are given below. Which of them are right angles?

A. 7 cm, 24 cm, 25 cm
B. 3 cm, 8 cm, 6 cm
C. 50 cm, 80 cm, 100cm

14. The ratio of the area of two similar triangles is equal to the ————- of the ratio of the corresponding sides.

A. Twice
B. Square
C. Thrice

15. A ladder is placed against a wall such that its foot is at a distance of 2.5 m from the wall and its top reaches a window 6m above the ground. The length of the ladder is ————-

A. 6.5 m
B. 6 m
C. 5.5 m

ANSWERS:
1. Congruent
2. Similar figures
3. All similar figures are congruent
4. Similar
5. Equilateral
6. Equal, proportional
7. Same
8. Equal
9. Right angle
10. 5 cm
11. Basic proportionality theorem
12. AAA
13. 7 cm, 24 cm, 25 cm
14. Square
15. 6.5 m (Use Pythagoras Theorem)

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1. O is a point on side PQ of a APQR such that PO = QO = RO, then
(a) $RS^2 = PR \times QR$

(b) $PR^2 + QR^2 = PQ^2$

(c) $QR^2 = QO^2 + RO^2$

(d) $PO^2 + RO^2 = PR^2$

Answer
Answer: b

2. In ABC, DE || AB. If CD = 3 cm, EC = 4 cm, BE = 6 cm, then DA is equal to
(a) 7.5 cm

(b) 3 cm

(c) 4.5 cm

(d) 6 cm

Answer
Answer: c

3. AABC is an equilateral A of side a. Its area will be...
MCQ Questions for Class 10 Maths Triangles with Answers 1

Answer
Answer: a

4. In a square of side 10 cm, its diagonal = …
(a) 15 cm

(b) 10√2 cm

(c) 20 cm

(d) 12 cm

Answer
Answer: b

5. In a rectangle Length = 8 cm, Breadth = 6 cm. Then its diagonal = …
(a) 9 cm

(b) 14 cm

(c) 10 cm

(d) 12 cm

Answer
Answer: c

6. In a rhombus if d1 = 16 cm, d2 = 12 cm, its area will be…
(a) 16 × 12 cm^2

(b) 96 cm^2

(c) 8 × 6 cm^2

(d) 144 cm^2

Answer
Answer: b

7. In a rhombus if d1 = 16 cm, d2 = 12 cm, then the length of the side of the rhombus is
(a) 8 cm

(b) 9 cm

(c) 10 cm

(d) 12 cm

Answer
Answer: c
8. If in two As ABC and DEF, ABDF=BCFE=CAED, then
(a) ΔABC ~ ΔDEF

(b) ΔABC ~ ΔEDF

(c) ΔABC ~ ΔEFD

(d) ΔABC ~ ΔDFE

Answer
Answer: d

9. It is given that ΔABC ~ ΔDEF and BCEF=15. Then Undefined control sequence \operatorname is equal to
(a) 5

(b) 25

(c) 125

(d) 15

Answer
Answer: b
10. In ∠BAC = 90° and AD ⊥ BC. A Then
MCQ Questions for Class 10 Maths Triangles with Answers 2

(a) BD.CD = BC²

(б) AB.AC = BC²

(c) BD.CD = AD²

(d) AB.AC = AD²

Answer
Answer: c
11. D and E are respectively the points on the sides AB and AC of a triangle ABC such that AD = 2 cm, BD = 3 cm, BC = 7.5 cm and DE || BC. Then, length of DE (in cm) is
(a) 2.5

(b) 3

(c) 5

(d) 6

Answer
Answer: b
12. If ΔABC ~ ΔDEF and ΔABC is not similar to ΔDEF then which of the following is not true?
(a) BC.EF = AC.FD

(b) AB.ED = AC.DE

(c) BC.DE = AB.EE

(d) BC.DE = AB.FD

Answer
Answer: c
13. If in two triangles DEF and PQR, ZD = ZQ and ZR = ZE, then which of the following is not true?
MCQ Questions for Class 10 Maths Triangles with Answers 3

Answer
Answer: b
14. If ΔABC ~ ΔPQR, BCQR=13 then Undefined control sequence \operatorname is
(a) 9

(b) 3

(c) 1/3

(d) 1/9

Answer
Answer: a
15. If ΔABC ~ ΔQRP, Undefined control sequence \operatorname, AB = 18 cm and BC = 15 cm, then PR is equal to
(a) 10 cm

(b) 12 cm

(c) 203cm

(d) 8 cm

Answer
Answer: a
16. If in triangles ABC and DEF,ABDE=BCFD , then they will be similar, if

(a) $\angle B = \angle E$

(b) $\angle A = \angle D$

(c) $\angle B = \angle D$

(d) $\angle A = \angle F$

Answer
Answer: c