SEARCH ON GOOGLE RAVI MATHS TUITION CENTER, CHENNAI-82.
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2ND REVISION MODEL 1

10th Standard

Maths

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WHATSAPP - 8 0 5 6 2 0 6 3 0 8

Exam Time : 03:00:00 Hrs | Total Marks : 100

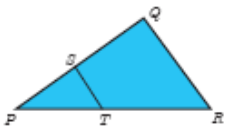
ANSWER ALL | 14 x 1 = 14

1) If in triangles ABC and EDF, $\frac{AB}{DE} = \frac{BC}{FD}$ then they will be similar, when
(a) $\angle B = \angle E$ (b) $\angle A = \angle D$ (c) $\angle B = \angle D$ (d) $\angle A = \angle F$

2) In $\angle LMN$, $\angle L=60^o$, $\angle M=50^o$, If $\triangle LMN \sim \triangle PQR$ then the value of $\angle R$ is
(a) 40^o (b) 70° (c) 30° (d) 110°

3) If $\triangle ABC$ is an isosceles triangle with $\angle C=90^o$ and AC = 5 cm, then AB is
(a) 2.5 cm (b) 5 cm (c) 10 cm (d) $5\sqrt{2}$cm

4) In a given figure ST||QR,PS=2cm and SQ=3 cm.
Then the ratio of the area of $\triangle PQR$ to the area $\triangle PST$ is



(a) 25 : 4 (b) 25 : 7 (c) 25 : 11 (d) 25 : 13

5) The perimeters of two similar triangles$\triangle ABC$ and $\triangle PQR$ are 36 cm and 24 cm respectively. If PQ = 10 cm, then the length of AB is
(a) $6\frac{2}{3}$ (b) $\frac{10\sqrt{6}}{3}cm$ (c) $60\frac{2}{3}cm$ (d) 15cm

6) The area of triangle formed by the points (−5, 0), (0, −5) and (5, 0) is
(a) 0 sq.units (b) 25 sq.units (c) 5 sq.units (d) none of these

7) A man walks near a wall, such that the distance between him and the wall is 10 units. Consider the wall to be the Y axis. The path travelled by the man is
(a) x = 10 (b) y = 10 (c) x = 0 (d) y = 0

8) The straight line given by the equation x = 11 is
(a) parallel to X axis (b) parallel to Y axis (c) passing through the origin
(d) passing through the point (0,11)

9) If (5, 7), (3, p) and (6, 6) are collinear, then the value of p is
(a) 3 (b) 6 (c) 9 (d) 12

10) The point of intersection of 3x − y = 4 and x + y = 8 is
(a) (5, 3) (b) (2, 4) (c) (3, 5) (d) (4, 4)

11) If the ratio of the height of a tower and the length of its shadow is $\sqrt{3}$:1 then the angle of elevation of the sun has measure
(a) 45° (b) 30° (c) 90° (d) 60°

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12) The electric pole subtends an angle of 30° at a point on the same level as its foot. At a second point 'b' metres above the first, the depression of the foot of the tower is 60°. The height of the tower (in metres) is equal to

(a) $\sqrt{3}$ b (b) $\frac{b}{3}$ (c) $\frac{b}{2}$ (d) $\frac{b}{\sqrt{3}}$

13) A tower is 60 m height. Its shadow is x metres shorter when the sun's altitude is 45° than when it has been 30°, then x is equal to

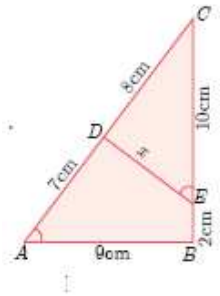
(a) 41.92 m (b) 43.92 m (c) 43 m (d) 45.6 m

14) The angle of depression of the top and bottom of 20 m tall building from the top of a multistoried building are 30° and 60° respectively. The height of the multistoried building and the distance between two buildings (in metres) is

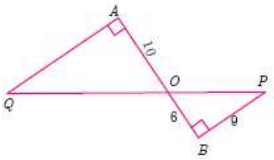
(a) $20,10\sqrt{3}$ (b) $30,5\sqrt{3}$ (c) 20,10 (d) $30,10\sqrt{3}$

ANSWER 10 10 x 2 = 20

15) $\angle A = \angle CED$ prove that $\Delta\, CAB \sim \Delta CED$ Also find the value of x.



16) QAand PB are perpendiculars to AB. If AO = 10 cm, BO = 6 cm and PB = 9 cm. Find AQ.



17) If △ABC is similar to△DEFsuch that BC = 3 cm, EF = 4 cm and area of △ABC= 54 cm^2. Find the area of △DEF.

18) A vertical stick of length 6 m casts a shadow 400 cm long on the ground and at the same time a tower casts a shadow 28 m long. Using similarity, find the height of the tower.

19) Two triangles QPR and QSR, right angled at P and S respectively are drawn on the same base QR and on the same side of QR. If PR and SQ intersect at T, prove that PT × TR = ST × TQ.

20) Find the area of the triangle formed by the points (1,–1), (–4, 6) and (–3, –5)

21) Find the value of 'a' for which the given points are collinear. (2, 3), (4, a) and (6, –3)

22) Find the slope of a line joining the given points (- 6, 1) and (-3, 2)

23) Show that the points (-2, 5), (6, -1) and (2, 2) are collinear

24) Find the equation of a straight line whose Slope is 5 and y intercept is -9

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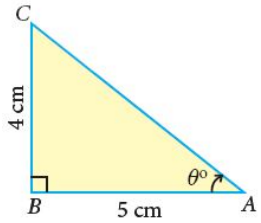
25) calculate the size of ∠BAC inthe given triangles



26) A tower stands vertically on the ground. from a point on the ground,whivh is 48m away from the foot of the tower, the angel of elevation of the top of the tower is 30°.find the hieght of the tower.

27) Find the angle of elevation of the top of a tower from a point on the ground, which is 30 m away from the foot of a tower of height $10\sqrt{3}m$

28) A road is flanked on either side by continuous rows of houses of height $4\sqrt{3}$m with no space in between them. A pedestrian is standing on the median of the road facing a row house. The angle of elevation from the pedestrian to the top of the house is 30°. Find the width of the road.

CHAPTERWISE TEST PAPERS AVAILABLE . 10 x 5 = 50
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ANSWER 10

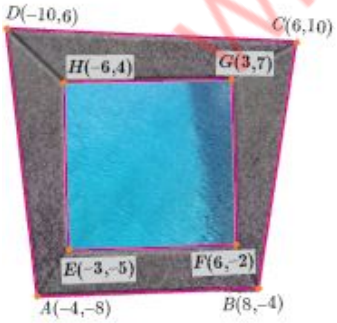
29) If the area of the triangle formed by the vertices A(-1,2) , B(k,-2) and C(7,4) (taken in order) is 22 sq. units, find the value of k.

30) If the points P(-1, -4), Q (b, c) and R(5, 1) are collinear and if 2b + c = 4, then find the values of b and c.

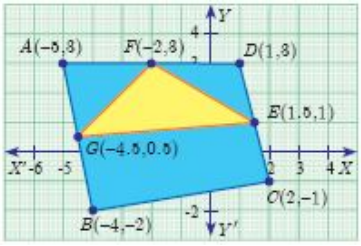
31) A girl looks the reflection of the top of the lamp post on the mirror which is 66 m away from the foot of the lamppost. The girl whose height is 12.5 m is standing 2.5 m away from the mirror. Assuming the mirror is placed on the ground facing the sky and the girl, mirror and the lamppost are in a same line, find the height of the lamp post.

32) If △ABC~△DDEF such that area of △ABC is 9cm^2 and the area of DDEF is 16cm^2 and BC = 2.1 cm. Find the length of EF

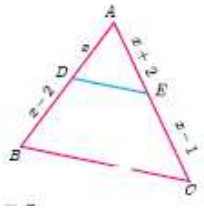
33) In the figure, the quadrilateral swimming pool shown is surrounded by concrete patio. Find the area of the patio.



34) In the figure, find the area of triangle AGF



35) In △ ADC=, if DE||BC, AD=x, DB=x−2, and EC=x−1 then find the lengths of the sides AB and AC.



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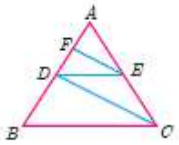
36) In figure DE||BC andCD. Prove that AD^2=AB X AF



37) Two ships are sailing in the sea on either sides of a lighthouse as observed from the ships are 30° and 45° respectively. if the lighthouse is 200 m high,find the distance between the two ships. $\left(\sqrt{3}=1.732\right)$

38) A kite is flying at a height of 75m above the ground,the string attached to the kite is temporarily tied to a point on the ground.The inclination of the string with the ground is 60°.find the length of the string ,assuming that there is no slack in the string.

39) From a point on the ground, the angles of elevation of the bottom and top of a tower fixed at the top of a 30m high building are 45° and 60° respectively. find the hieght of the tower. ($\sqrt{3}=1.732$)

40) A(-3, 0) B(10, - 2) and C(12, 3) are the vertices of ΔABC. Find the equation of the altitude through A and B.

41) A tv tower stands vertically on a bank of a canal. thw tower is watched from a point on the other bank directly opposite to it.the angel of elevation of the top of the tower is 58°. from another point 20m away from this point on the line joining this point of the tower,the angel of elevation of the top of the tower is 30°.find the height of the tower and the width of the canal.(tan58°=1.6003)

42) Basic Proportionality Theorem (BPT) or Thales theorem?

ANSWER ALL 2 x 8 = 16

43) a) Construct a triangle similar to a given triangle PQR with its sides equal to $\frac{3}{5}$ of the corresponding sides of the triangle PQR (scale factor $\frac{3}{5}<1$)

(OR)

b) Construct a triangle similar to a given triangle PQR with its sides equal to $\frac{7}{4}$ of the corresponding sides of the triangle PQR (scale factor $\frac{7}{4}$ > 1)

44) a) Construct a △PQR which the base PQ= 4.5 cm,∠R=35°and the median from R to RG is 6 cm.

(OR)

b) Construct a △PQR in which QR= 5 cm, ∠P=40° and the median PG from P to QR is 4.4 cm. Find the length of the altitude from P to QR.

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