



ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian minority Institution

Subject: Mathematics Class- X

Date: 7/11/2020

Answer key of Worksheet-1

Chapter- similarity

Topic- Theorems on similarity of triangles

1. Choose the correct alternative. $1 \times 15 = 15$
- a) All squares are _____.
i) Congruent **ii) similar** iii) both iv) none of these
- b) All circles are _____.
i) Congruent **ii) similar** iii) both iv) none of these
- c) Two _____ triangles are always similar.
i) **Equilateral** ii) scalene iii) isosceles iv) none of these
- d) The corresponding angles of any two similar polygonal figures are _____.
i) Double of each other **ii) equal** iii) triple of each other iv) none of these
- e) Rhombus and square are always _____.
i) Similar ii) congruent iii) both **iv) none of the above**
- f) If there are two triangle having equal angles. Sides of one triangle are 2.5 cm , 3.5 cm and 6 cm. what are the lengths of corresponding sides of the other triangle.
i) 5.5 cm, 12 cm and 7 cm ii) 5.8 cm, 7 cm and 13 cm **iii) 5 cm, 7 cm and 12 cm** iv) none of these
- g) If there are two triangle having equal angles. Sides of one triangle are 5 cm , 3.9 cm and 6.5 cm. what are the lengths of corresponding sides of the other triangle.
i) 10 cm, 7.8 cm and 13 cm ii) 10 cm , 7.6 cm and 13 cm iii) 10 cm , 7.4 cm and 13 cm iv) none of these
- h) A straight line _____to any side of any triangle divides other two sides proportionally.

i) perpendicular ii) parallel iii) both iv) none of these

i) In ABC triangle DE line is parallel to BC. AD=5 cm, DB= 6 cm and AE=7.5 cm

length of EC is i) 9 cm ii) 9.5 cm iii) 8.5 cm iv) 7.5 cm

j) In ABC triangle DE is parallel to BC. AD=3 cm , BD=6 cm , AE= 4 cm and find the length of AC

i) 8 cm ii) 14 cm iii) 12 cm iv) none of these

k) A line parallel to the side BC of ABC triangle intersects the sides AB and AC at the points X and Y respectively. If AX= 2.4 cm , AY= 3.2 cm and YC=4.8 cm, then length of AB is

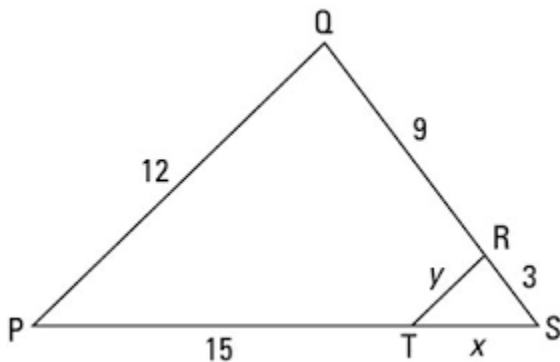
i) 3.6 cm ii) 6 cm iii) 7.2 cm iv) 6.4 cm

l) The point D and E are situated on the sides AB and AC of the triangle ABC in such a way that DE is parallel to BC. AD:DB= 3:1 , If EA=3.3 cm then length of AC is

i) 1.1 cm ii) 4 cm iii) 4.4 cm iv) 5.5 cm

m) In the following figure If RT is parallel to PQ then find the value of x.

i) 5 cm ii) 5.5 cm iii) 6 cm iv) none of these



n) In the above figure find the value of Y

i) 9 cm ii) 6 cm iii) 3 cm iv) none of these

o) In the triangle DEF, PQ is the line segment joining any two points P and Q on the sides DE and DF respectively. if DP=5 cm, DE=15 cm ,DQ=6 cm and QF=18

then i) $PQ=EF$ ii) PQ is parallel to EF iii) PQ is not equal to EF iv) PQ is not parallel to EF .

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