



ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian minority Institution

Subject: Mathematics Class- X

Date: 7/11/2020

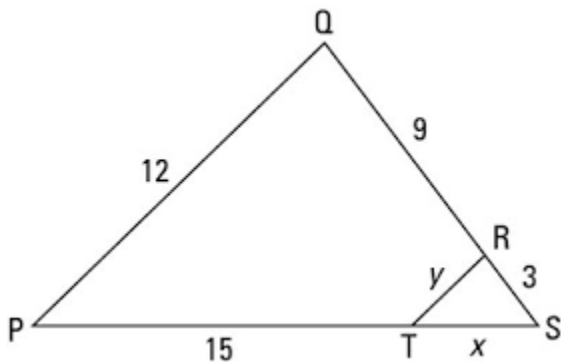
Worksheet-1

Chapter- similarity

Topic- Theorems on similarity of triangles

1. Choose the correct alternative. 1x15=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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