Congruence & Similarity

1. $\Delta XYZ \sim \Delta LMN$, with $ar(\Delta XYZ) = 36$ cm^2 and $ar(\Delta LMN) = 64$ cm^2. If $XY = 18$ cm, then find the length of LM.

A) 20 cm B) 22 cm
C) 24 cm D) 26 cm

2. Two triangles, ΔABC and ΔXYZ, are congruent under the ASA criterion. If $\angle ABC = 55^\circ$, $\angle BCA = 65^\circ$, and $\angle XYZ = 55^\circ$, find the value of $\angle YZX$.

A) 50° B) 60° C) 65° D) 70°

3. In $\Delta ABC \sim \Delta PQR$, the sides of ΔABC are 6 cm longest side of ΔPQR.

A) 16 cm B) 18 cm
C) 20 cm D) 22 cm

4. In $\Delta XYZ \sim \Delta ABC$, the sides of ΔXYZ are 10 cm of ΔABC.

A) 12 cm B) 14 cm
C) 15 cm D) 16 cm

5. In $\Delta XYZ \sim \Delta MNO$, the corresponding sides are p the length of YZ, if NO = 30 cm.

A) 14 cm B) 15 cm
C) 16 cm D) 17 cm

6. If $\Delta PQR \sim \Delta STU$, such that PQ = 8 cm,

A) 9 cm B) 10 cm
C) 12 cm D) 11 cm

7. If $\Delta XYZ \sim \Delta MNO$, and the ratio of their a

A) 13.5 cm B) 14 cm
C) 15.5 cm D) 16 cm

8. If $\Delta PQR \sim \Delta STU$, and the ratio of their ar

A) 12 cm B) 15 cm
C) 18 cm D) 20 cm

9. If $\Delta PQR \sim \Delta XYZ$, such that $PQ = 8$

A) 16 cm B) 15 cm
C) 18 cm D) 20 cm

10. The areas of two similar triangles are 400 cm

A) $\frac{20}{18}$ B) $\frac{18}{19}$
C) $\frac{19}{18}$ D) $\frac{18}{20}$

11. If $\Delta ABC \sim \Delta DEF$, such that $AB = 12$ cm, EF

A) 9 cm B) 12 cm
C) 10 cm D) 16 cm

12. $\Delta XYZ \sim \Delta PQR$ such that $XY = 7.2$ cm and PQ =

A) 50 cm B) 52 cm
C) 54 cm D) 48 cm

13. $\Delta ABC \sim \Delta DEF$ such that $BC = 10$ cm and EF =

A) 40 cm B) 45 cm
C) 50 cm D) 35 cm

14. In ΔXYZ, points M and N are on XY and YZ, respective
of XM.

A) 18 cm B) 10.5 cm
C) 16 cm D) 12 cm

15. In ΔPQR, points M and N lie on PQ and PR, respectivel
of PM.

A) 10 cm B) 12.33 cm
C) 16.67 cm D) 14.95 cm

16. ΔPQR and ΔXYZ are similar triangles. The areas of ΔP

A) 9.6 cm B) 10.2 cm
C) 10.8 cm D) 11.4 cm

17. If the ratio of the corresponding sides of two similar triangles is 4 : 5, then what is the ratio of their areas?

A) 16 : 25 B) 4 : 5
C) 8 : 10 D) 20 : 25

18. In ΔPQR, ST is a line parallel to QR, dividing the triang
the length of PT.

A) 4 cm B) 5 cm
C) 6 cm D) 7 cm

Key

1-C, 2-B, 3-A, 4-C, 5-B, 6-B, 7-A, 8-A, 9-A, 10-A, 11-D, 12-C, 13-C, 14-A, 15-C, 16-A, 17-A, 18-D.