Triangles

1. O is a point on side PQ of a APQR such that PO = QO = RO, then
(a) RSÂ² = PR Ã— QR
(b) PRÂ² + QRÂ² = PQÂ²
(c) QRÂ² = QOÂ² + ROÂ²
(d) POÂ² + ROÂ² = PRÂ²

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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

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3. AABC is an equilateral A of side a. Its area will beâ€¦

(a) $\dfrac{\sqrt{3}}{4}a^2$

(b) $\dfrac{\sqrt{3}}{4}a$

(c) $\dfrac{\sqrt{3}}{2}a^2$

(d) $\dfrac{\sqrt{3}}{2}a$

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4. In a square of side 10 cm, its diagonal = â€¦
(a) 15 cm
(b) 10âˆš2 cm
(c) 20 cm
(d) 12 cm

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5. In a rectangle Length = 8 cm, Breadth = 6 cm. Then its diagonal = â€¦
(a) 9 cm
(b) 14 cm
(c) 10 cm
(d) 12 cm

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6. In a rhombus if d_1 = 16 cm, d_2 = 12 cm, its area will beâ€¦
(a) 16 Ã— 12 cmÂ²
(b) 96 cmÂ²
(c) 8 Ã— 6 cmÂ²
(d) 144 cmÂ²

7. In a rhombus if d_1 = 16 cm, d_2 = 12 cm, then the length of the side of the rhombus is
(a) 8 cm
(b) 9 cm
(c) 10 cm
(d) 12 cm

8. If in two As ABC and DEF, $\frac{AB}{DF} = \frac{BC}{FE} = \frac{CA}{ED}$, then
(a) â^†ABC ~ â^†DEF
(b) â^†ABC ~ â^†EDF
(c) â^†ABC ~ â^†EFD
(d) â^†ABC ~ â^†DFE

9. It is given that â^†ABC ~ â^†DEF and $\frac{BC}{EF} = \frac{1}{5}$. Then Formula does not parse is equal to
(Ð°) 5
(b) 25
(c) $\frac{1}{25}$
(d) $\frac{1}{5}$

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

12. If Î"ABC ~ Î"DEF and Î"ABC is not similar to Î"DEF 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

13. If in two triangles DEF and PQR, ZD = ZQ and ZR = ZE, then which of the following is not true?

(a) $\dfrac{EF}{PR} = \dfrac{DF}{PQ}$

(b) $\dfrac{DE}{QR} = \dfrac{EF}{RP}$

(c) $\dfrac{DE}{QR} = \dfrac{DF}{PQ}$

(d) $\dfrac{EF}{RP} = \dfrac{DE}{QR}$

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14. If Î"ABC ~ Î"PQR, $\dfrac{BC}{QR} = \dfrac{1}{3}$ then Formula does not parse is
(a) 9
(b) 3
(c) 13
(d) 19

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15. If Î"ABC ~ Î"QRP, Formula does not parse , AB = 18 cm and BC = 15 cm, then PR is equal to
(a) 10 cm
(b) 12 cm
(c) $\dfrac{20}{3}$ cm
(d) 8 cm

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16. If in triangles ABC and DEF, $\dfrac{AB}{DE} = \dfrac{BC}{FD}$, then they will be similar, if
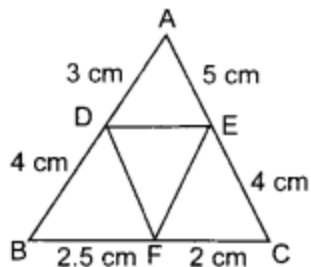(a) âˆ B = âˆ E
(b) âˆ A = âˆ D
(c) âˆ B = âˆ D
(d) âˆ A = âˆ F

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17. In the given figure, $\dfrac{AD}{BD} = \dfrac{AE}{EC}$ and âˆ ADC = 70Â° âˆ BAC =

(a) 70Â°
(b) 50Â°
(c) 80Â°
(d) 60Â°
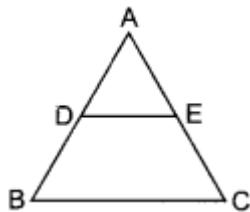
18. In given figure, AD = 3 cm, AE = 5 cm, BD = 4 cm, CE = 4 cm, CF = 2 cm, BF = 2.5 cm, then

A
3 cm 5 cm
D   E
4 cm   4 cm
B 2.5 cm F 2 cm C

(a) DE || BC
(b) DF || AC
(c) EF || AB
(d) none of these

19. If Î"ABC ~ Î"EDF and Î"ABC is not similar to Î"DEF, then which of the following is not true? [NCERT Exemplar Problems]
(a) BC . EF = AC . FD
(b) AB . EF = AC . DE
(c) BC . DE = AB . EF
(d) BC . DE = AB . FD

20. If in two triangles ABC and PQR, $\frac{AB}{QR} = \frac{BC}{PR} = \frac{CA}{PQ}$, then [NCERT Exemplar Problems]
(a) Î"PQR ~ Î"CAB
(b) Î"PQR ~ Î"ABC
(c) Î"CBA ~ Î"PQR
(d) Î"BCA ~ Î"PQR