



1. In the given figure, $\triangle EGF$ is right-angled at G, $GH \perp EF$.
 $EF = c$, $GF = a$, $EG = b$ and $GH = p$. Which of the following are true?

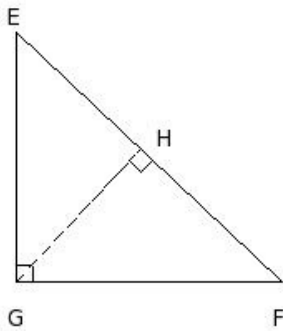
a) $a^2 + b^2 = c^2$

b) $\frac{1}{a^2} + \frac{1}{b^2} = \frac{1}{p^2}$

c) $ab = pc$

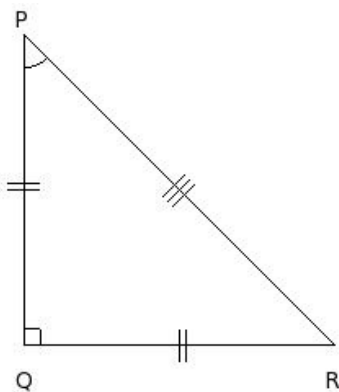
d) $\frac{1}{a^2} + \frac{1}{b^2} + \frac{1}{c^2} = \frac{1}{p^2}$

e) $\frac{1}{a^2} + \frac{1}{b^2} = \frac{1}{c^2} + \frac{1}{p^2}$



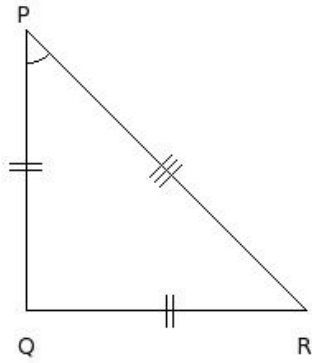
- (i) $\{d, a\}$ (ii) $\{d, a, b\}$ (iii) $\{d, e, c\}$ (iv) $\{e, b\}$ (v) $\{a, b, c\}$

2. In an isosceles right angled triangle $\triangle PQR$, if corresponding height to the base QR is 19 cm, then perimeter of the triangle =



- (i) 64.87 cm (ii) 61.87 cm (iii) 59.87 cm (iv) 67.87 cm (v) 69.87 cm

3. In an isosceles right angled triangle $\triangle PQR$, if $RP = 24.04$ cm is the hypotenuse, then perimeter of the triangle =

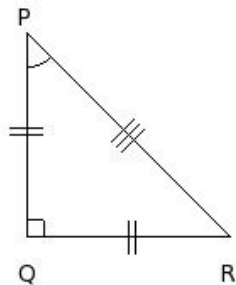


- (i) 53.04 cm (ii) 63.04 cm (iii) 55.04 cm (iv) 58.04 cm (v) 61.04 cm

4. The altitude and area of an equilateral triangle of side 'a' is

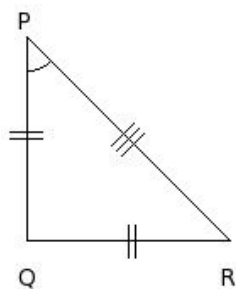
- (i) $\sqrt{3} a, \frac{1}{2} \sqrt{3} a$ (ii) $\frac{1}{2} \sqrt{3} a, \frac{1}{4} \sqrt{3} a^2$ (iii) $\sqrt{3} a, \frac{1}{2} \sqrt{3} a^2$ (iv) $\frac{1}{2} \sqrt{3} a, \frac{1}{2} \sqrt{3} a^2$

5. In an isosceles right angled triangle $\triangle PQR$, if corresponding height to the base QR is 12 cm, then corresponding height of side QR =



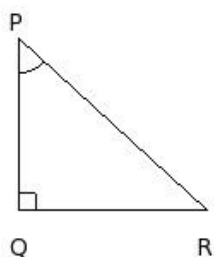
- (i) 9.00 cm (ii) 12.00 cm (iii) 7.00 cm (iv) 15.00 cm (v) 17.00 cm

6. In an isosceles right angled triangle $\triangle PQR$, if $QR = 12$ cm is one of the equal sides, then perimeter of the triangle =



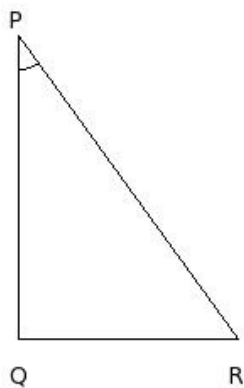
- (i) 43.97 cm (ii) 37.97 cm (iii) 40.97 cm (iv) 45.97 cm (v) 35.97 cm

7. In a right angled triangle $\triangle PQR$, if $QR = 11$ cm is one of the perpendicular sides and $RP = 14.87$ cm is the hypotenuse, then corresponding height of side QR =



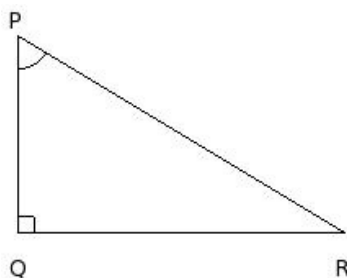
- (i) 5.00 cm (ii) 15.00 cm (iii) 7.00 cm (iv) 13.00 cm (v) 10.00 cm

8. In a right angled triangle $\triangle PQR$, if $QR = 13$ cm, $PQ = 18$ cm are the lengths of perpendicular sides, then area of the triangle =



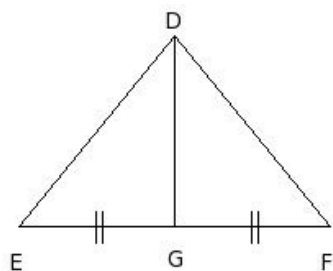
- (i) 121.00 sq.cm (ii) 112.00 sq.cm (iii) 95.00 sq.cm (iv) 117.00 sq.cm (v) 144.00 sq.cm

9. In a right angled triangle $\triangle PQR$, if the base $QR = 20$ cm and the corresponding height is 12 cm, then side $PQ =$



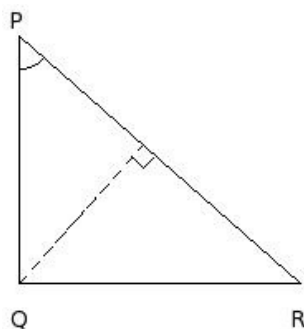
- (i) 15.00 cm (ii) 12.00 cm (iii) 9.00 cm (iv) 17.00 cm (v) 7.00 cm

10. In the given figure, $\triangle DEF$ is a triangle with DG being the median of EF . Then



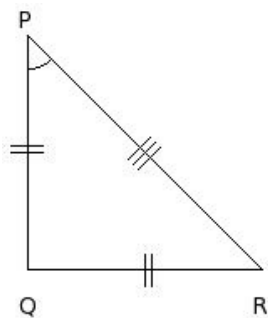
- (i) $DE^2 + DF^2 = 2 GF^2 + 2 DG^2$ (ii) $DE^2 + DF^2 = EF^2$ (iii) $DE^2 + DF^2 = DG^2$ (iv) $DE^2 + DF^2 = 2 EG^2 + 2 DG^2$
 (v) $DE^2 + DF^2 = 2 EG^2 + 2 GF^2$

11. In a right angled triangle $\triangle PQR$, if $QR = 17$ cm is one of the perpendicular sides and $RP = 22.67$ cm is the hypotenuse, then corresponding height of side $RP =$



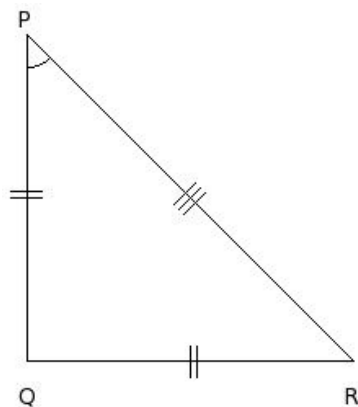
- (i) 8.25 cm (ii) 11.25 cm (iii) 14.25 cm (iv) 6.25 cm (v) 16.25 cm

12. In an isosceles right angled triangle $\triangle PQR$, if perimeter = 47.8 cm, then side RP =



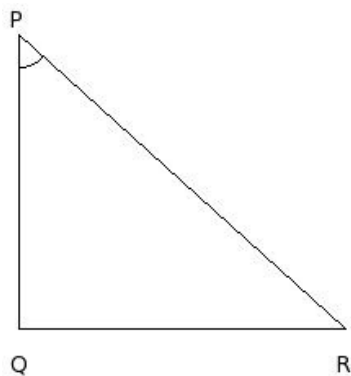
- (i) 16.80 cm (ii) 19.80 cm (iii) 24.80 cm (iv) 14.80 cm (v) 22.80 cm

13. In an isosceles right angled triangle $\triangle PQR$, if QR = 20 cm is one of the equal sides, then area of the triangle =



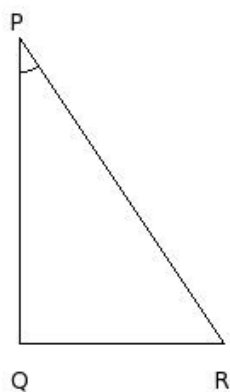
- (i) 194.00 sq.cm (ii) 216.00 sq.cm (iii) 185.00 sq.cm (iv) 200.00 sq.cm (v) 218.00 sq.cm

14. In a right angled triangle $\triangle PQR$, if QR = 20 cm is one of the perpendicular sides and RP = 26.91 cm is the hypotenuse, then corresponding height of side PQ =



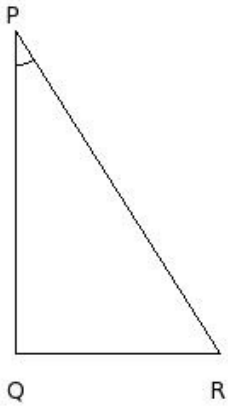
- (i) 15.00 cm (ii) 17.00 cm (iii) 20.00 cm (iv) 23.00 cm (v) 25.00 cm

15. In a right angled triangle $\triangle PQR$, if QR = 12 cm is one of the perpendicular sides and RP = 21.63 cm is the hypotenuse, then side PQ =



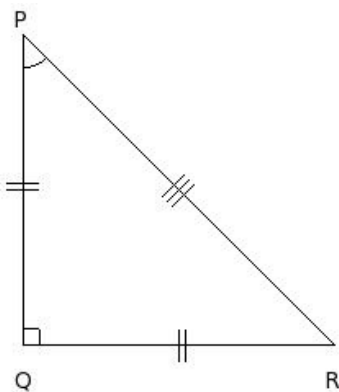
- (i) 15.00 cm (ii) 21.00 cm (iii) 23.00 cm (iv) 13.00 cm (v) 18.00 cm

16. In a right angled triangle $\triangle PQR$, if $QR = 12$ cm, $PQ = 19$ cm are the lengths of perpendicular sides, then perimeter of the triangle =



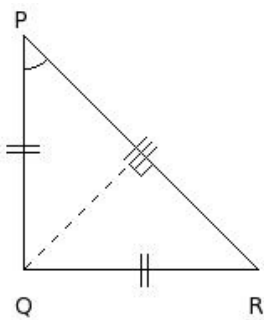
- (i) 53.47 cm (ii) 48.47 cm (iii) 58.47 cm (iv) 56.47 cm (v) 50.47 cm

17. In an isosceles right angled triangle $\triangle PQR$, if $RP = 26.87$ cm is the hypotenuse, then corresponding height of side $QR =$



- (i) 14.00 cm (ii) 22.00 cm (iii) 24.00 cm (iv) 16.00 cm (v) 19.00 cm

18. In an isosceles right angled triangle $\triangle PQR$, if $RP = 19.8$ cm is the hypotenuse, then corresponding height of side $RP =$



- (i) 8.90 cm (ii) 11.90 cm (iii) 9.90 cm (iv) 10.90 cm (v) 7.90 cm

19. A ladder reaches a window which is 12 m above the ground on one side of a street. Keeping its foot at the same point, the ladder is turned to the other side of the street to reach a window 16 m high. Find the width of the street if the length of the ladder is 19 m

- (i) 24.98 m (ii) 25.98 m (iii) 23.98 m (iv) 22.98 m (v) 26.98 m

20. In the given figure, $\triangle FGH$, $FI \perp GH$. Which of the following are true?

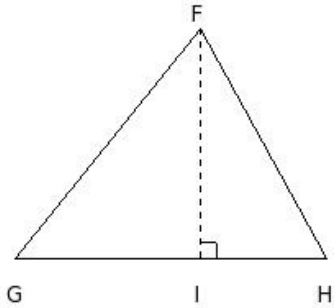
a) $FG^2 + FH^2 = GI^2 + HI^2$

b) $FG^2 + GI^2 = FH^2 + HI^2$

c) $FI^2 = 2GI \cdot HI$

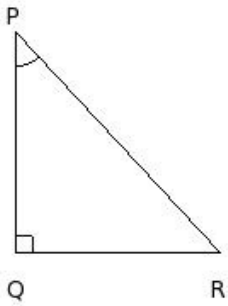
d) $FG^2 - FH^2 = GI^2 - HI^2$

e) $FG^2 - GI^2 = FH^2 - HI^2$



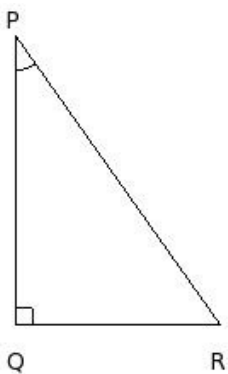
- (i) {b,e} (ii) {c,a,d} (iii) {b,e,d} (iv) {a,d} (v) {d,e}

21. In a right angled triangle $\triangle PQR$, if the area is 78 sq.cm and corresponding height of side QR = 13 cm, then side PQ =



- (i) 18.00 cm (ii) 13.00 cm (iii) 8.00 cm (iv) 10.00 cm (v) 16.00 cm

22. In a right angled triangle $\triangle PQR$, if the area is 102 sq.cm and corresponding height of side QR = 17 cm, then side QR =



- (i) 17.00 cm (ii) 7.00 cm (iii) 15.00 cm (iv) 12.00 cm (v) 9.00 cm

23. In the given figure, $\triangle DEF$, G is the mid-point of EF and $DH \perp EF$. Which of the following are true?

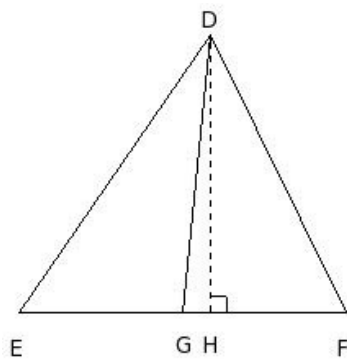
a) $DF^2 = DG^2 + EF \cdot GH + \frac{1}{4} EF^2$

b) $DE^2 + DF^2 = 2 DG^2 + \frac{1}{2} EF^2$

c) $DE^2 = DG^2 - EF \cdot GH + \frac{1}{4} EF^2$

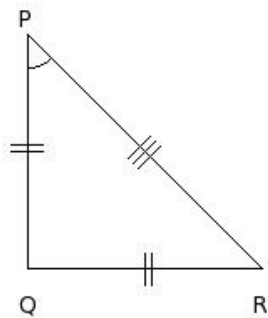
d) $DE^2 = DH^2 - EF \cdot GH + \frac{1}{4} EF^2$

e) $DF^2 = DH^2 + EF \cdot GH + \frac{1}{4} EF^2$



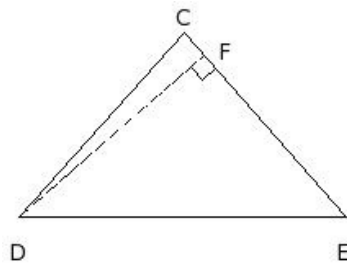
- (i) {d,a} (ii) {d,a,b} (iii) {e,b} (iv) {a,b,c} (v) {d,e,c}

24. In an isosceles right angled triangle $\triangle PQR$, if $QR = 14$ cm is one of the equal sides, then side $RP =$



- (i) 19.80 cm (ii) 14.80 cm (iii) 16.80 cm (iv) 22.80 cm (v) 24.80 cm

25. In the given figure, $\triangle CDE$ is isosceles with $CD = CE$ and $DF \perp CE$. Then



- (i) $DF^2 + EF^2 = 2 EF \cdot CF$ (ii) $DF^2 - EF^2 = 2 EF \cdot CF$ (iii) $DF^2 + CF^2 = 2 EF \cdot CF$ (iv) $DF^2 - CF^2 = 2 EF \cdot CF$

Assignment Key

1) (v)	2) (i)	3) (iv)	4) (ii)	5) (ii)	6) (iii)
7) (v)	8) (iv)	9) (ii)	10) (iv)	11) (ii)	12) (ii)
13) (iv)	14) (iii)	15) (v)	16) (i)	17) (v)	18) (iii)
19) (i)	20) (v)	21) (ii)	22) (iv)	23) (iv)	24) (i)
25) (ii)					