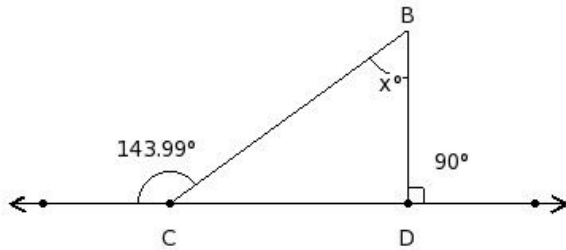


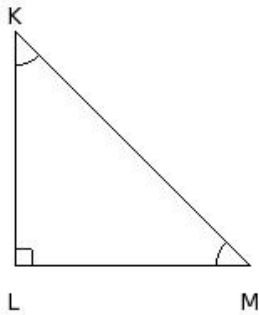


1. Calculate the value of the lettered angle in the following figure



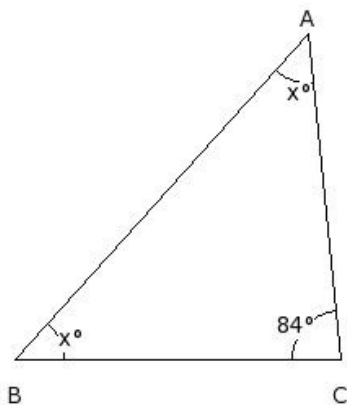
- (i) $x=53.99^\circ$ (ii) $x=52.99^\circ$ (iii) $x=55.99^\circ$ (iv) $x=54.99^\circ$ (v) $x=51.99^\circ$

2. Which of the following are measures of an isosceles right angled triangle ?



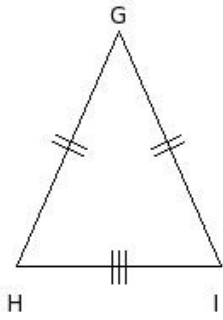
- (i) $\angle K = 92.02^\circ$, $\angle L = 41.78^\circ$, $\angle M = 46.2^\circ$ (ii) $\angle K = 70.81^\circ$, $\angle L = 47.91^\circ$, $\angle M = 61.28^\circ$
(iii) $\angle K = 60^\circ$, $\angle L = 60^\circ$, $\angle M = 60^\circ$ (iv) $\angle K = 67.97^\circ$, $\angle L = 59.41^\circ$, $\angle M = 52.62^\circ$
(v) $\angle K = 45^\circ$, $\angle L = 90^\circ$, $\angle M = 45^\circ$

3. Find the unknown angles in the following figure



- (i) $A=49^\circ, B=49^\circ$ (ii) $A=47^\circ, B=47^\circ$ (iii) $A=48^\circ, B=48^\circ$ (iv) $A=46^\circ, B=46^\circ$ (v) $A=50^\circ, B=50^\circ$

4. Which of the following are measures of an isosceles triangle ?



- (i) $GH = 15 \text{ cm}$, $HI = 12 \text{ cm}$, $IG = 15 \text{ cm}$ (ii) $GH = 10 \text{ cm}$, $HI = 10 \text{ cm}$, $IG = 10 \text{ cm}$
(iii) $GH = 13 \text{ cm}$, $HI = 10 \text{ cm}$, $IG = 14 \text{ cm}$ (iv) $GH = 10 \text{ cm}$, $HI = 14 \text{ cm}$, $IG = 11 \text{ cm}$
(v) $GH = 15 \text{ cm}$, $HI = 14 \text{ cm}$, $IG = 20.52 \text{ cm}$

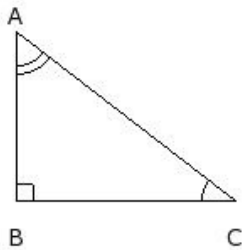
5. The point of intersection of the altitudes of a triangle is called

- (i) excentre (ii) altitude (iii) orthocentre (iv) median (v) centroid

6. How many diagonals does a triangle have?

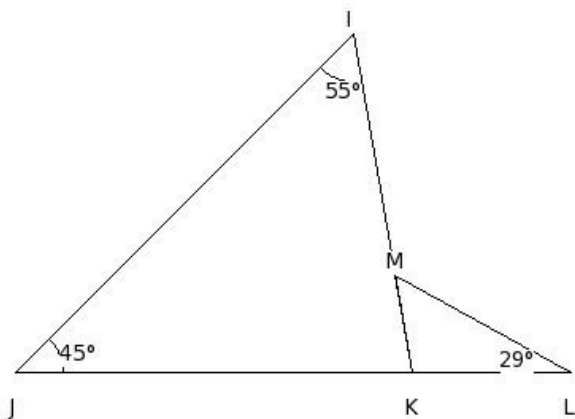
- (i) 3 (ii) 2 (iii) 4 (iv) 0 (v) 1

7. Which of the following are measures of a right angled triangle ?



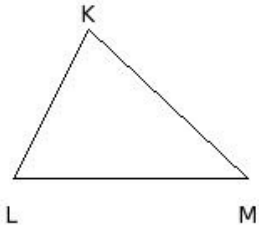
- (i) $\angle A = 52.43^\circ$, $\angle B = 90^\circ$, $\angle C = 37.57^\circ$ (ii) $\angle A = 69.51^\circ$, $\angle B = 59.17^\circ$, $\angle C = 51.32^\circ$
(iii) $\angle A = 52.62^\circ$, $\angle B = 67.97^\circ$, $\angle C = 59.41^\circ$ (iv) $\angle A = 60^\circ$, $\angle B = 60^\circ$, $\angle C = 60^\circ$
(v) $\angle A = 112.62^\circ$, $\angle B = 30.51^\circ$, $\angle C = 36.87^\circ$

8. In the given figure, find $\angle JKI$



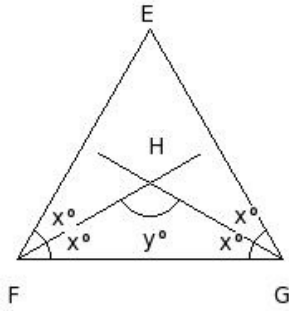
- (i) 79° (ii) 80° (iii) 81° (iv) 78° (v) 82°

9. The side opposite to the vertex K



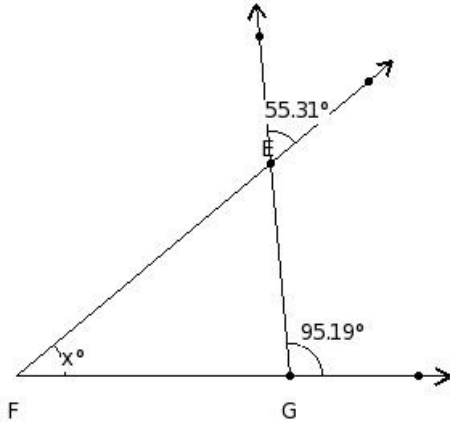
- (i) \overline{LM} (ii) \overline{KO} (iii) \overline{KL} (iv) \overline{MK} (v) \overline{NL}

10. In the given figure, $\triangle EFG$ is a triangle in which $\angle E = \angle F = \angle G$.
 The bisectors of $\angle F$ and $\angle G$ intersect at H. Find $\angle H =$



- (i) 120° (ii) 121° (iii) 122° (iv) 119° (v) 118°

11. Calculate the value of the lettered angle in the following figure

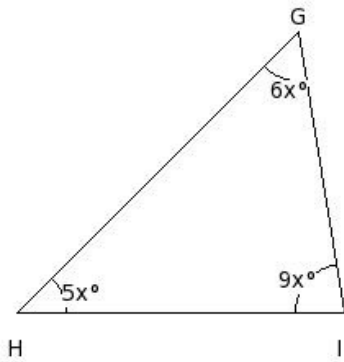


- (i) $x = 38.88^\circ$ (ii) $x = 37.88^\circ$ (iii) $x = 39.88^\circ$ (iv) $x = 41.88^\circ$ (v) $x = 40.88^\circ$

12. Which of the following are measures of a right angled triangle ?

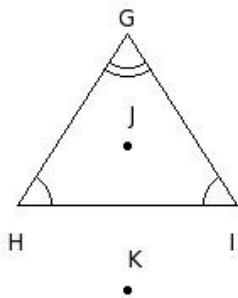
- (i) $\angle N = 66.87^\circ$, $\angle O = 66.87^\circ$, $\angle P = 46.26^\circ$ (ii) $\angle N = 40.91^\circ$, $\angle O = 90^\circ$, $\angle P = 49.09^\circ$
 (iii) $\angle N = 60^\circ$, $\angle O = 60^\circ$, $\angle P = 60^\circ$ (iv) $\angle N = 107.5^\circ$, $\angle O = 33.02^\circ$, $\angle P = 39.48^\circ$
 (v) $\angle N = 61.28^\circ$, $\angle O = 48.74^\circ$, $\angle P = 69.98^\circ$

13. Find the angles of the triangle



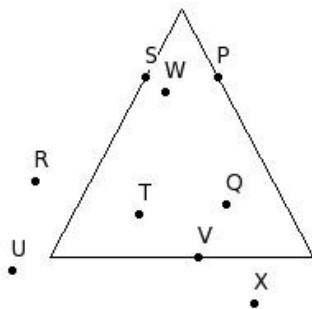
- (i) $G=54^\circ, H=43^\circ, I=83^\circ$ (ii) $G=56^\circ, H=45^\circ, I=79^\circ$ (iii) $G=54^\circ, H=45^\circ, I=81^\circ$ (iv) $G=52^\circ, H=47^\circ, I=81^\circ$
 (v) $G=52^\circ, H=45^\circ, I=83^\circ$

14. The angles of the triangle are



- (i) $\angle H, \angle I, \angle J$ (ii) $\angle I, \angle J, \angle K$ (iii) $\angle G, \angle H, \angle I$ (iv) $\angle H, \angle I, \angle K$ (v) $\angle G, \angle H, \angle J$

15. Identify the points that are on the triangle

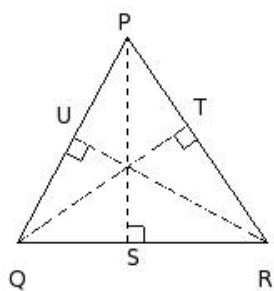


- (i) $\{P, S, V\}$ (ii) $\{V, S, T\}$ (iii) $\{U, V, P\}$ (iv) $\{R, U, X\}$ (v) $\{Q, T, W\}$

16. Which of the following are measures of an isosceles right angled triangle ?

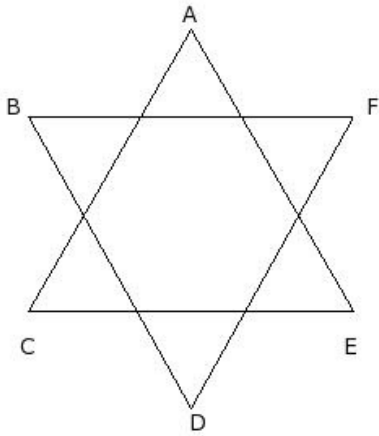
- (i) $\angle O = 52.62^\circ, \angle P = 59.41^\circ, \angle Q = 67.97^\circ$ (ii) $\angle O = 93.58^\circ, \angle P = 39.08^\circ, \angle Q = 47.34^\circ$
 (iii) $\angle O = 49.46^\circ, \angle P = 81.08^\circ, \angle Q = 49.46^\circ$ (iv) $\angle O = 60^\circ, \angle P = 60^\circ, \angle Q = 60^\circ$
 (v) $\angle O = 45^\circ, \angle P = 90^\circ, \angle Q = 45^\circ$

17. The altitude corresponding to the side \overline{RP}



- (i) \overline{PT} (ii) \overline{PQ} (iii) \overline{QT} (iv) \overline{PS} (v) \overline{RU}

18. In the given two equilateral triangles, find $\angle A + \angle C + \angle E + \angle B + \angle D + \angle F$.



- (i) 359° (ii) 358° (iii) 360° (iv) 361° (v) 362°

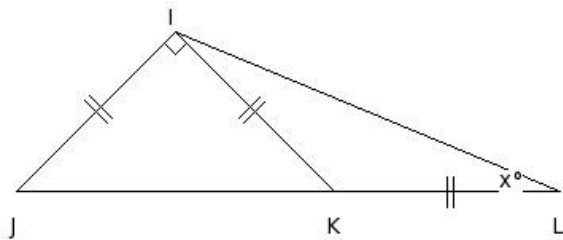
19. In a right-angled triangle, the two acute angles are in the ratio 2 : 1. Find these angles.

- (i) $A=61^\circ, C=31^\circ$ (ii) $A=58^\circ, C=28^\circ$ (iii) $A=59^\circ, C=29^\circ$ (iv) $A=60^\circ, C=30^\circ$ (v) $A=62^\circ, C=32^\circ$

20. Sum of the interior angles in a triangle is

- (i) 190° (ii) 185° (iii) 210° (iv) 195° (v) 180°

21. In the given figure, calculate the value of x .

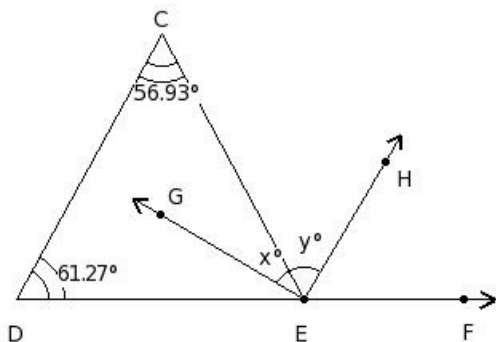


- (i) $x=24.5^\circ$ (ii) $x=23.5^\circ$ (iii) $x=21.5^\circ$ (iv) $x=22.5^\circ$ (v) $x=20.5^\circ$

In the given figure, $\angle C = 56.93^\circ$ and $\angle D = 61.27^\circ$.

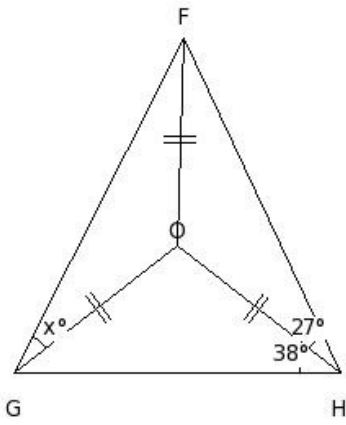
22. Side DE is produced to F, so that $\angle DEC$ and $\angle CEF$ form a linear pair.

If \vec{EG} and \vec{EH} are the bisectors of $\angle DEC$ and $\angle CEF$, find x and y .



- (i) $x=30.9^\circ, y=59.1^\circ$ (ii) $x=29.9^\circ, y=58.1^\circ$ (iii) $x=28.9^\circ, y=57.1^\circ$ (iv) $x=32.9^\circ, y=61.1^\circ$
 (v) $x=31.9^\circ, y=60.1^\circ$

23. Find the value of x in the given figure.

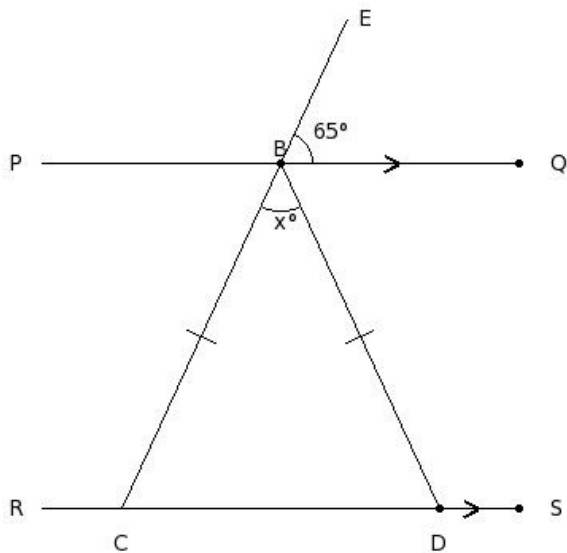


- (i) $x=23^\circ$ (ii) $x=26^\circ$ (iii) $x=24^\circ$ (iv) $x=27^\circ$ (v) $x=25^\circ$

24. Which of the following are measures of a scalene triangle ?

- (i) $\angle D = 60^\circ$, $\angle E = 60^\circ$, $\angle F = 60^\circ$ (ii) $\angle D = 45^\circ$, $\angle E = 90^\circ$, $\angle F = 45^\circ$
 (iii) $\angle D = 47.16^\circ$, $\angle E = 66.42^\circ$, $\angle F = 66.42^\circ$ (iv) $\angle D = 64.78^\circ$, $\angle E = 57.61^\circ$, $\angle F = 57.61^\circ$
 (v) $\angle D = 46.95^\circ$, $\angle E = 61.26^\circ$, $\angle F = 71.79^\circ$

25. In the given figure, $PQ \parallel RS$, $\angle EBQ = 65^\circ$ and $BC = DB$. Find the measure of x .



- (i) $x=50^\circ$ (ii) $x=51^\circ$ (iii) $x=49^\circ$ (iv) $x=52^\circ$ (v) $x=48^\circ$

Assignment Key

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