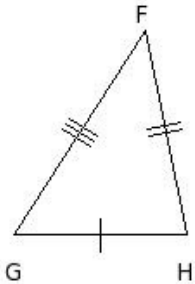


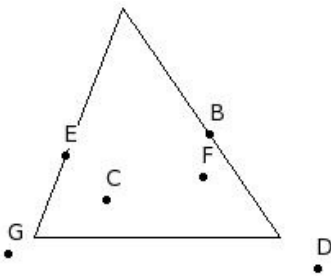


1. Which of the following are measures of a scalene triangle ?



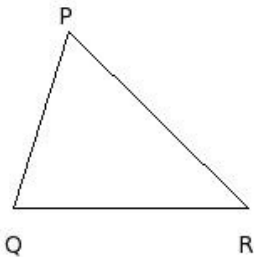
- (i) $FG = 10\text{ cm}$, $GH = 12\text{ cm}$, $HF = 10\text{ cm}$ (ii) $FG = 15\text{ cm}$, $GH = 15\text{ cm}$, $HF = 21.21\text{ cm}$
(iii) $FG = 14\text{ cm}$, $GH = 10\text{ cm}$, $HF = 12\text{ cm}$ (iv) $FG = 10\text{ cm}$, $GH = 10\text{ cm}$, $HF = 10\text{ cm}$
(v) $FG = 11\text{ cm}$, $GH = 15\text{ cm}$, $HF = 11\text{ cm}$

2. Identify the points that are on the triangle



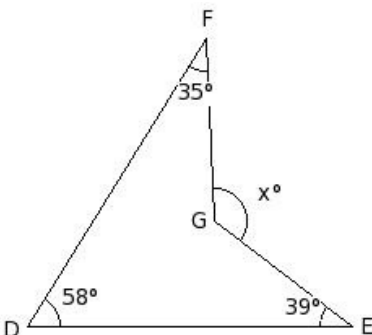
- (i) $\{D,G\}$ (ii) $\{G,B\}$ (iii) $\{B,C\}$ (iv) $\{C,F\}$ (v) $\{B,E\}$

3. Identify the figure below



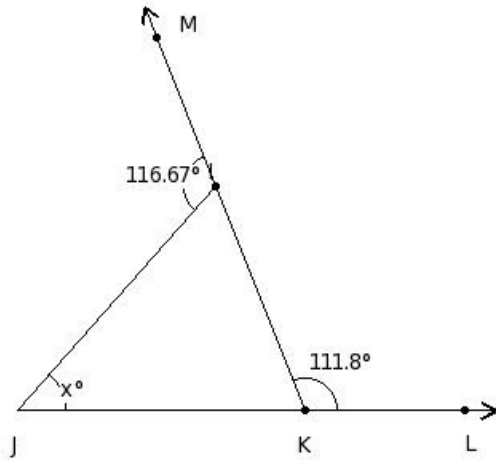
- (i) quadrilateral (ii) decagon (iii) pentagon (iv) triangle (v) heptagon

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



- (i) $x=132^\circ$ (ii) $x=134^\circ$ (iii) $x=130^\circ$ (iv) $x=131^\circ$ (v) $x=133^\circ$

5. Find the unknown marked angle in the following figure

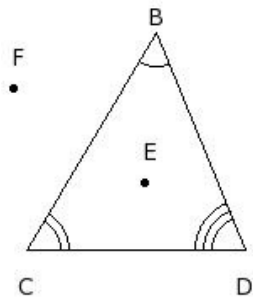


- (i) $x=46.47^\circ$ (ii) $x=49.47^\circ$ (iii) $x=47.47^\circ$ (iv) $x=48.47^\circ$ (v) $x=50.47^\circ$

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

- (i) orthocentre (ii) circumcentre (iii) centroid (iv) incentre (v) excentre

7. The vertices of the triangle are

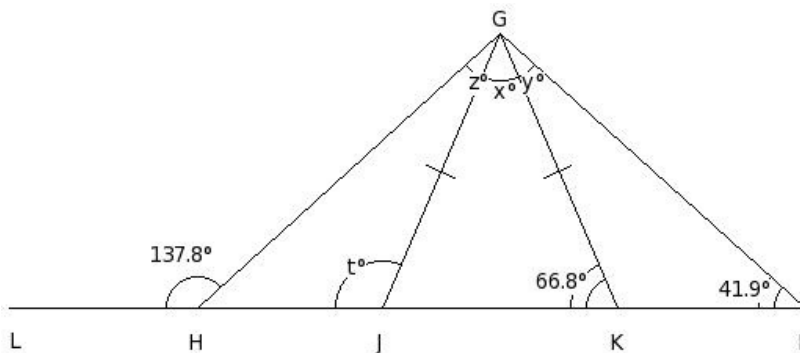


- (i) B, C, E (ii) D, E, F (iii) B, C, D (iv) C, D, F (v) C, D, E

8. The line joining each vertex to the mid-point of the opposite side of a triangle is called

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

9. In the given figure, if $GJ = KG$, find the values of x , y , z and t



- (i) $x = 46.4^\circ$, $y = 24.9^\circ$, $z = 24.6^\circ$, $t = 113.2^\circ$ (ii) $x = 46.4^\circ$, $y = 24.9^\circ$, $z = 25.6^\circ$, $t = 114.2^\circ$
 (iii) $x = 46.4^\circ$, $y = 26.9^\circ$, $z = 26.6^\circ$, $t = 113.2^\circ$ (iv) $x = 46.4^\circ$, $y = 22.9^\circ$, $z = 22.6^\circ$, $t = 113.2^\circ$
 (v) $x = 46.4^\circ$, $y = 24.9^\circ$, $z = 23.6^\circ$, $t = 112.2^\circ$

10. Which of the following are measures of an acute angled triangle ?

- (i) $\angle C = 45^\circ$, $\angle D = 90^\circ$, $\angle E = 45^\circ$ (ii) $\angle C = 51.34^\circ$, $\angle D = 90^\circ$, $\angle E = 38.66^\circ$
 (iii) $\angle C = 106.26^\circ$, $\angle D = 36.87^\circ$, $\angle E = 36.87^\circ$ (iv) $\angle C = 111.32^\circ$, $\angle D = 36.04^\circ$, $\angle E = 32.64^\circ$
 (v) $\angle C = 55.83^\circ$, $\angle D = 49.32^\circ$, $\angle E = 74.85^\circ$

11. Which of the following may lie outside or on the triangle?

- a) circumcentre
- b) incentre
- c) excentre
- d) centroid
- e) orthocentre

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

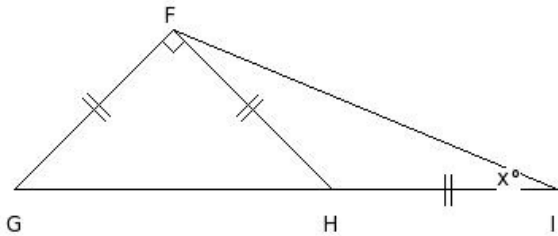
12. Which of the following are measures of an obtuse angled triangle ?

- (i) $\angle D = 45^\circ$, $\angle E = 90^\circ$, $\angle F = 45^\circ$ (ii) $\angle D = 50.19^\circ$, $\angle E = 90^\circ$, $\angle F = 39.81^\circ$
- (iii) $\angle D = 73.69^\circ$, $\angle E = 43.28^\circ$, $\angle F = 63.03^\circ$ (iv) $\angle D = 104.38^\circ$, $\angle E = 41.51^\circ$, $\angle F = 34.11^\circ$
- (v) $\angle D = 62.97^\circ$, $\angle E = 62.96^\circ$, $\angle F = 54.07^\circ$

13. The perpendicular drawn from each vertex to the opposite side of a triangle is called

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

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

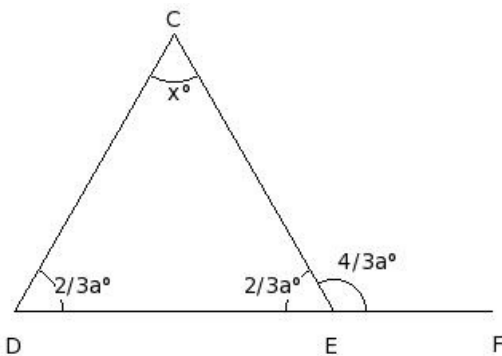


- (i) $x=23.5^\circ$ (ii) $x=20.5^\circ$ (iii) $x=24.5^\circ$ (iv) $x=22.5^\circ$ (v) $x=21.5^\circ$

15. If all the three angles of a triangle are of the same measure, find the measure of each of the angles.

- (i) 61° (ii) 59° (iii) 62° (iv) 58° (v) 60°

16. In the given figure, $\triangle CDE$ in which side DE has been produced to F. If $\angle ECD = x^\circ$, $\angle CDE = (2/3a)^\circ$, $\angle DEC = (2/3a)^\circ$ and $\angle CEF = (4/3a)^\circ$, find the values of a and x.



- (i) $a=90^\circ, x=60^\circ$ (ii) $a=89^\circ, x=59^\circ$ (iii) $a=92^\circ, x=62^\circ$ (iv) $a=88^\circ, x=58^\circ$ (v) $a=91^\circ, x=61^\circ$

17. In $\triangle ABC$, if $\angle A = 40^\circ$ and $\angle B = \angle C$, find the measure of each of the equal angles of the triangle

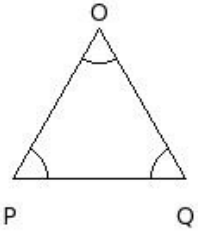
- (i) 68° (ii) 72° (iii) 70° (iv) 71° (v) 69°

18. Which of the following are measures of an equilateral triangle ?

- (i) $AB = 14$ cm , $BC = 11$ cm , $CA = 12$ cm (ii) $AB = 10$ cm , $BC = 10$ cm , $CA = 14.14$ cm
- (iii) $AB = 13$ cm , $BC = 11$ cm , $CA = 13$ cm (iv) $AB = 15$ cm , $BC = 15$ cm , $CA = 15$ cm
- (v) $AB = 11$ cm , $BC = 12$ cm , $CA = 16.28$ cm

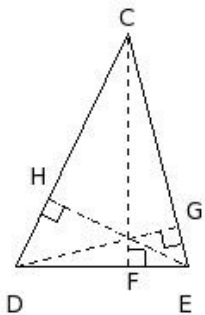
19. Each of the two equal angles of an isosceles triangle is half the third angle. Find the angles of the triangle
- (i) $X=43^\circ, Y=92^\circ, Z=45^\circ$ (ii) $X=47^\circ, Y=90^\circ, Z=43^\circ$ (iii) $X=45^\circ, Y=90^\circ, Z=45^\circ$ (iv) $X=43^\circ, Y=90^\circ, Z=47^\circ$
- (v) $X=45^\circ, Y=88^\circ, Z=47^\circ$

20. Which of the following are measures of an equilateral triangle ?



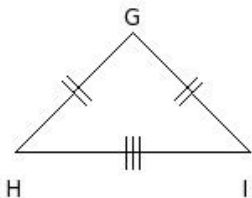
- (i) $\angle O = 45^\circ, \angle P = 90^\circ, \angle Q = 45^\circ$ (ii) $\angle O = 79.04^\circ, \angle P = 50.48^\circ, \angle Q = 50.48^\circ$
- (iii) $\angle O = 53.75^\circ, \angle P = 90^\circ, \angle Q = 36.25^\circ$ (iv) $\angle O = 60^\circ, \angle P = 60^\circ, \angle Q = 60^\circ$
- (v) $\angle O = 56.25^\circ, \angle P = 73.62^\circ, \angle Q = 50.13^\circ$

21. The altitude corresponding to the side \overline{EC}



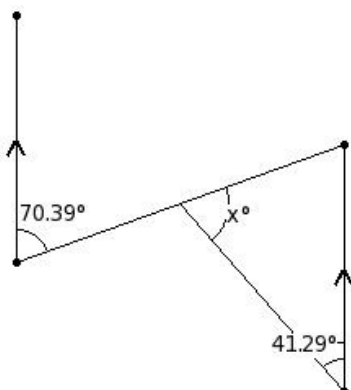
- (i) \overline{EH} (ii) \overline{CD} (iii) \overline{CF} (iv) \overline{DG} (v) \overline{CG}

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



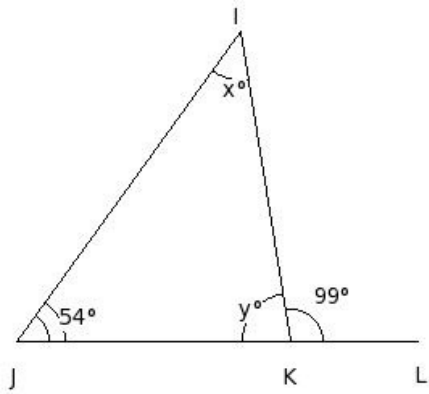
- (i) $GH = 11 \text{ cm}, HI = 15 \text{ cm}, IG = 13 \text{ cm}$ (ii) $GH = 10 \text{ cm}, HI = 14 \text{ cm}, IG = 10 \text{ cm}$
- (iii) $GH = 13 \text{ cm}, HI = 10 \text{ cm}, IG = 16.4 \text{ cm}$ (iv) $GH = 10 \text{ cm}, HI = 10 \text{ cm}, IG = 10 \text{ cm}$
- (v) $GH = 14 \text{ cm}, HI = 11 \text{ cm}, IG = 10 \text{ cm}$

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



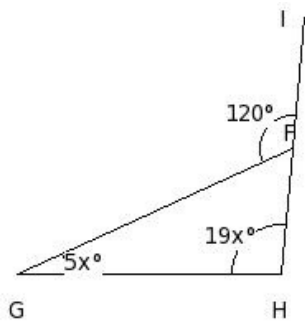
- (i) $x=67.32^\circ$ (ii) $x=70.32^\circ$ (iii) $x=66.32^\circ$ (iv) $x=68.32^\circ$ (v) $x=69.32^\circ$

24. In the following figure, one side of a triangle has been produced. Find the values of x and y .



- (i) $x=44^\circ, y=80^\circ$ (ii) $x=46^\circ, y=82^\circ$ (iii) $x=43^\circ, y=79^\circ$ (iv) $x=45^\circ, y=81^\circ$ (v) $x=47^\circ, y=83^\circ$

25. In the following figure, one side of a triangle has been produced. Find all the angles of the triangle.



- (i) $F=58^\circ, G=25^\circ, H=97^\circ$ (ii) $F=62^\circ, G=25^\circ, H=93^\circ$ (iii) $F=60^\circ, G=23^\circ, H=97^\circ$ (iv) $F=60^\circ, G=25^\circ, H=95^\circ$
(v) $F=58^\circ, G=27^\circ, H=95^\circ$

Assignment Key

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