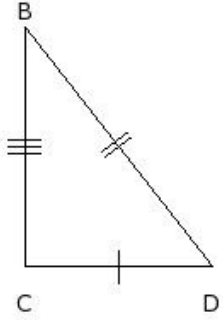




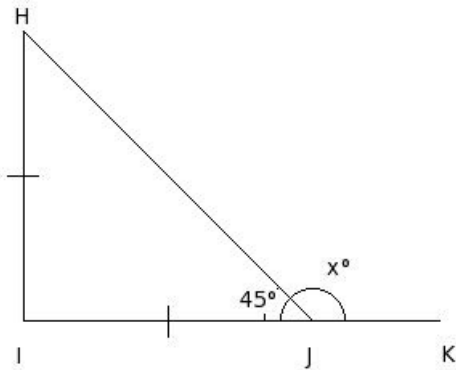
1. In a right-angled triangle if one of the acute angles is 36° , find the measure of the other acute angle.
(i) 55° (ii) 52° (iii) 54° (iv) 56° (v) 53°

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



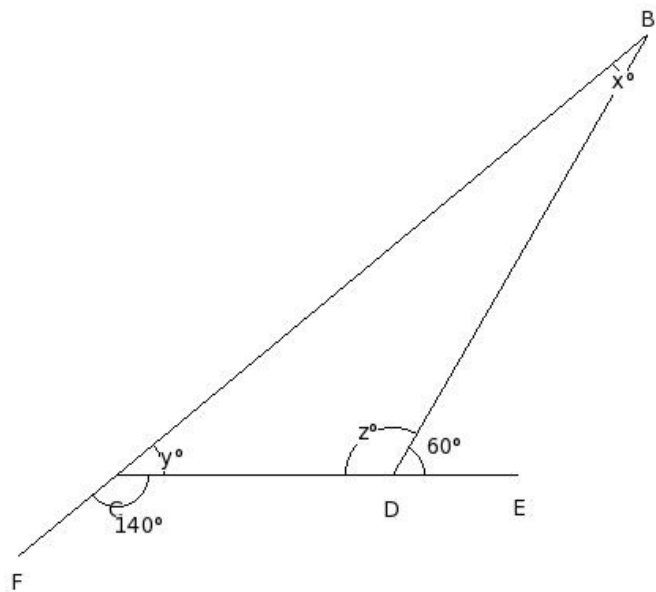
- (i) $BC = 14\text{ cm}$, $CD = 11\text{ cm}$, $DB = 17.8\text{ cm}$ (ii) $BC = 11\text{ cm}$, $CD = 18\text{ cm}$, $DB = 10\text{ cm}$
(iii) $BC = 12\text{ cm}$, $CD = 14\text{ cm}$, $DB = 11\text{ cm}$ (iv) $BC = 13\text{ cm}$, $CD = 13\text{ cm}$, $DB = 13\text{ cm}$
(v) $BC = 11\text{ cm}$, $CD = 10\text{ cm}$, $DB = 14\text{ cm}$

3. Find the unknown angle in the following figure



- (i) $x=137^\circ$ (ii) $x=136^\circ$ (iii) $x=135^\circ$ (iv) $x=134^\circ$ (v) $x=133^\circ$

4. In the following figure, two sides of a triangle have been produced. Find all the angles of the triangle.



- (i) $x=20^\circ, y=38^\circ, z=122^\circ$ (ii) $x=18^\circ, y=42^\circ, z=120^\circ$ (iii) $x=20^\circ, y=40^\circ, z=120^\circ$ (iv) $x=22^\circ, y=40^\circ, z=118^\circ$
 (v) $x=18^\circ, y=40^\circ, z=122^\circ$

5. In a right-angled triangle, the two acute angles are in the ratio 4 : 5. Find these angles.

- (i) $A=40^\circ, C=50^\circ$ (ii) $A=42^\circ, C=52^\circ$ (iii) $A=41^\circ, C=51^\circ$ (iv) $A=39^\circ, C=49^\circ$ (v) $A=38^\circ, C=48^\circ$

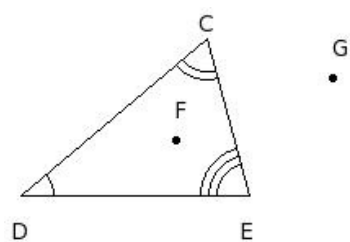
6. Find the measure of each of the two equal angles of an isosceles right-angled triangle.

- (i) 47° (ii) 46° (iii) 45° (iv) 43° (v) 44°

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

- (i) $\angle N = 45^\circ, \angle O = 90^\circ, \angle P = 45^\circ$ (ii) $\angle N = 52.26^\circ, \angle O = 81.28^\circ, \angle P = 46.46^\circ$
 (iii) $\angle N = 107.74^\circ, \angle O = 36.13^\circ, \angle P = 36.13^\circ$ (iv) $\angle N = 61.28^\circ, \angle O = 69.98^\circ, \angle P = 48.74^\circ$
 (v) $\angle N = 53.75^\circ, \angle O = 90^\circ, \angle P = 36.25^\circ$

8. The vertices of the triangle are

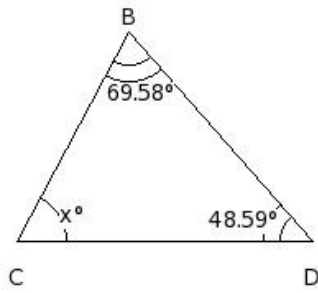


- (i) D, E, G (ii) C, D, F (iii) C, D, E (iv) E, F, G (v) D, E, F

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

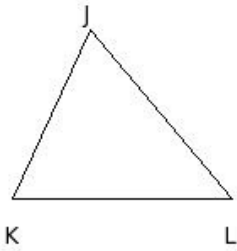
- (i) $OP = 10 \text{ cm}, PQ = 15 \text{ cm}, QO = 10 \text{ cm}$ (ii) $OP = 11 \text{ cm}, PQ = 14 \text{ cm}, QO = 11 \text{ cm}$
 (iii) $OP = 10 \text{ cm}, PQ = 10 \text{ cm}, QO = 14.14 \text{ cm}$ (iv) $OP = 15 \text{ cm}, PQ = 12 \text{ cm}, QO = 10 \text{ cm}$
 (v) $OP = 15 \text{ cm}, PQ = 15 \text{ cm}, QO = 15 \text{ cm}$

10. Find the unknown angle from the following figure



- (i) $x=63.83^\circ$ (ii) $x=62.83^\circ$ (iii) $x=61.83^\circ$ (iv) $x=59.83^\circ$ (v) $x=60.83^\circ$

11. The vertex opposite to the side \overline{JK}



- (i) \overline{LM} (ii) J (iii) K (iv) L

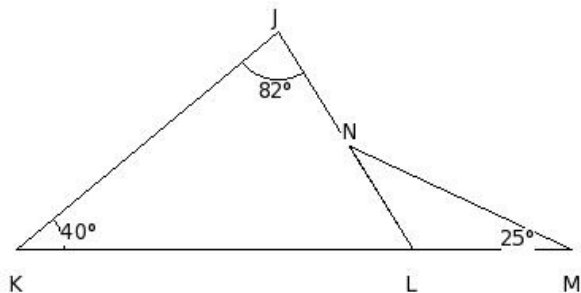
12. The ratio between the base angle and the vertical angle of an isosceles triangle is 1 : 1. Find each angle of the triangle

- (i) $A=58^\circ, B=60^\circ, C=62^\circ$ (ii) $A=58^\circ, B=62^\circ, C=60^\circ$ (iii) $A=60^\circ, B=60^\circ, C=60^\circ$ (iv) $A=60^\circ, B=58^\circ, C=62^\circ$
 (v) $A=62^\circ, B=60^\circ, C=58^\circ$

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

- (i) $\angle K = 109.47^\circ, \angle L = 38.94^\circ, \angle M = 31.59^\circ$ (ii) $\angle K = 47.73^\circ, \angle L = 90^\circ, \angle M = 42.27^\circ$
 (iii) $\angle K = 45^\circ, \angle L = 90^\circ, \angle M = 45^\circ$ (iv) $\angle K = 66.87^\circ, \angle L = 66.87^\circ, \angle M = 46.26^\circ$
 (v) $\angle K = 116.39^\circ, \angle L = 27.86^\circ, \angle M = 35.75^\circ$

14. In the given figure, find $\angle JNM$



- (i) 146° (ii) 149° (iii) 145° (iv) 147° (v) 148°

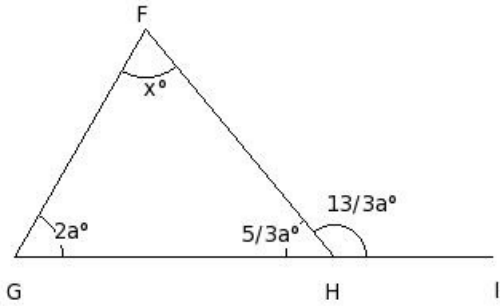
15. The vertical angle of an isosceles triangle is twice the sum of its base angles. Find each angle of the triangle.

- (i) $A=118^\circ, B=30^\circ, C=32^\circ$ (ii) $A=120^\circ, B=28^\circ, C=32^\circ$ (iii) $A=122^\circ, B=30^\circ, C=28^\circ$
 (iv) $A=120^\circ, B=30^\circ, C=30^\circ$ (v) $A=118^\circ, B=32^\circ, C=30^\circ$

16. Each of the two equal angles of an isosceles triangle is half the third angle. Find the angles of the triangle

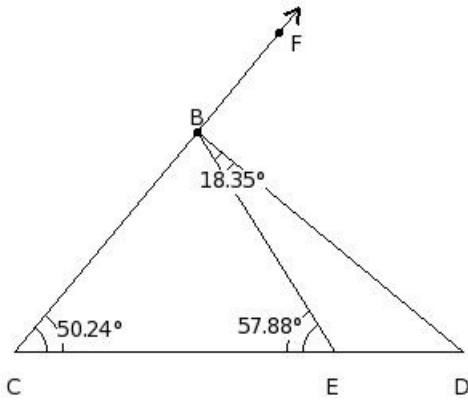
- (i) $X=47^\circ, Y=90^\circ, Z=43^\circ$ (ii) $X=43^\circ, Y=90^\circ, Z=47^\circ$ (iii) $X=43^\circ, Y=92^\circ, Z=45^\circ$ (iv) $X=45^\circ, Y=88^\circ, Z=47^\circ$
 (v) $X=45^\circ, Y=90^\circ, Z=45^\circ$

17. In the given figure, $\triangle FGH$ in which side GH has been produced to I . If $\angle HFG = x^\circ$, $\angle FGH = (2a)^\circ$, $\angle GHF = (5/3a)^\circ$ and $\angle FHI = (13/3a)^\circ$, find the values of a and x .



- (i) $a=28^\circ, x=68^\circ$ (ii) $a=31^\circ, x=71^\circ$ (iii) $a=29^\circ, x=69^\circ$ (iv) $a=30^\circ, x=70^\circ$ (v) $a=32^\circ, x=72^\circ$

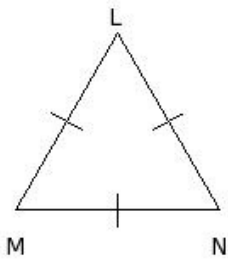
18. In below given figure, find $\angle EBC$



- (i) 71.88° (ii) 70.88° (iii) 69.88° (iv) 72.88° (v) 73.88°

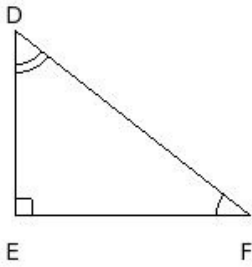
19. Consider the following figure. State which of the following statements are true

- a) $\angle N = \angle L$
- b) $\angle L = \angle M$
- c) $\angle M \neq \angle N$
- d) $\angle N \neq \angle L$
- e) $\angle L \neq \angle M$
- f) $\angle M = \angle N$



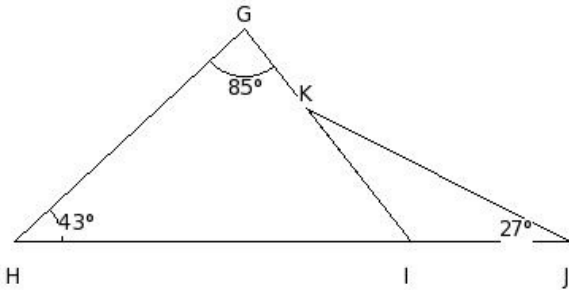
- (i) $\{d, a, b\}$ (ii) $\{d, b\}$ (iii) $\{e, c, f\}$ (iv) $\{c, a\}$ (v) $\{a, b, f\}$

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



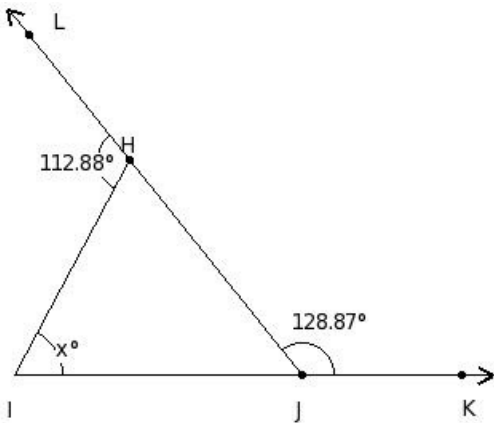
- (i) $\angle D = 51.84^\circ$, $\angle E = 90^\circ$, $\angle F = 38.16^\circ$ (ii) $\angle D = 76.33^\circ$, $\angle E = 55.3^\circ$, $\angle F = 48.37^\circ$
 (iii) $\angle D = 125.43^\circ$, $\angle E = 26.19^\circ$, $\angle F = 28.38^\circ$ (iv) $\angle D = 60^\circ$, $\angle E = 60^\circ$, $\angle F = 60^\circ$
 (v) $\angle D = 81.28^\circ$, $\angle E = 52.26^\circ$, $\angle F = 46.46^\circ$

21. In the given figure, find $\angle HIG$



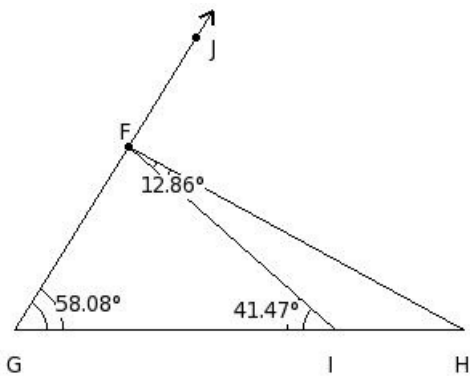
- (i) 52° (ii) 51° (iii) 50° (iv) 54° (v) 53°

22. Find the unknown marked angle in the following figure



- (i) $x=61.75^\circ$ (ii) $x=60.75^\circ$ (iii) $x=59.75^\circ$ (iv) $x=62.75^\circ$ (v) $x=63.75^\circ$

23. In below given figure, find $\angle FIH$

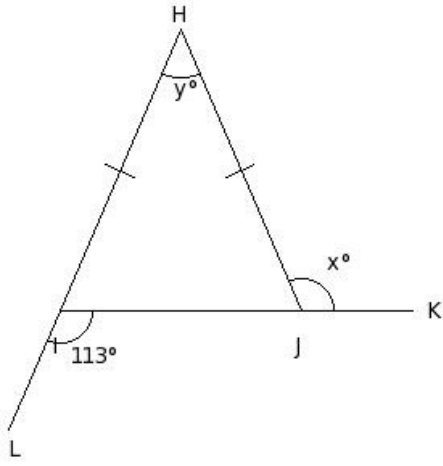


- (i) 137.53° (ii) 140.53° (iii) 138.53° (iv) 136.53° (v) 139.53°

24. In a right angled triangle, if one of the angles is 37.57° , find the third angle

- (i) 62.43° (ii) 67.43° (iii) 82.43° (iv) 52.43° (v) 57.43°

25. Find the unknown marked angles in the following figure



- (i) $x=112^\circ, y=45^\circ$ (ii) $x=111^\circ, y=44^\circ$ (iii) $x=115^\circ, y=48^\circ$ (iv) $x=113^\circ, y=46^\circ$ (v) $x=114^\circ, y=47^\circ$

Assignment Key

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