EduSahara™ Assignment

Name : Types of Triangles

Chapter : Understanding Elementary Shapes

Grade : CBSE Grade VI

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

   a) $\overline{RP} \neq \overline{PQ}$

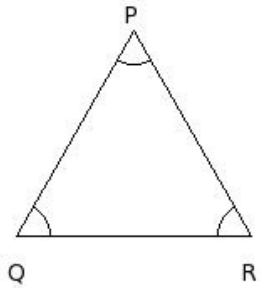
   b) $\overline{QR} = \overline{RP}$

   c) $\overline{QR} \neq \overline{RP}$

   d) $\overline{PQ} = \overline{QR}$

   e) $\overline{PQ} \neq \overline{QR}$

   f) $\overline{RP} = \overline{PQ}$



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

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

   a) $\overline{MN} = \overline{NL}$

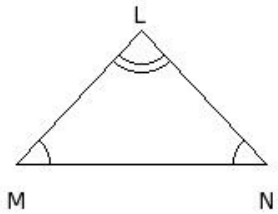
   b) $\overline{LM} = \overline{MN}$

   c) $\overline{NL} = \overline{LM}$

   d) $\overline{MN} \neq \overline{NL}$

   e) $\overline{NL} \neq \overline{LM}$

   f) $\overline{LM} \neq \overline{MN}$



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

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

a) $\overline{JK} \neq \overline{KL}$

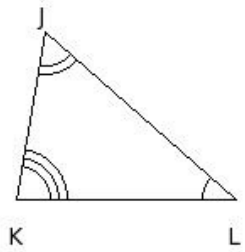
b) $\overline{LJ} \neq \overline{JK}$

c) $\overline{KL} \neq \overline{LJ}$

d) $\overline{JK} = \overline{KL}$

e) $\overline{LJ} = \overline{JK}$

f) $\overline{KL} = \overline{LJ}$



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

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

a) $\angle N \neq \angle O$

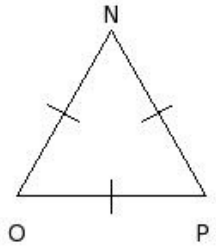
b) $\angle O = \angle P$

c) $\angle N = \angle O$

d) $\angle O \neq \angle P$

e) $\angle P = \angle N$

f) $\angle P \neq \angle N$



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

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

a) $\angle J = \angle H$

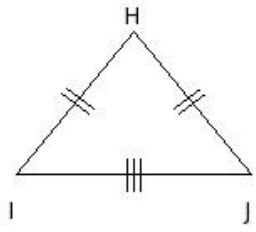
b) $\angle I \neq \angle J$

c) $\angle I = \angle J$

d) $\angle H \neq \angle I$

e) $\angle H = \angle I$

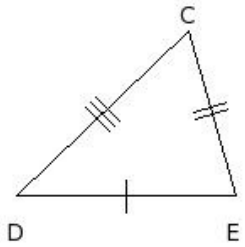
f) $\angle J \neq \angle H$



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

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

a) $\angle E \neq \angle C$
b) $\angle D \neq \angle E$
c) $\angle E = \angle C$
d) $\angle C \neq \angle D$
e) $\angle C = \angle D$
f) $\angle D = \angle E$



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

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

(i) LM = 10 cm , MN = 10 cm , NL = 10 cm (ii) LM = 14 cm , MN = 15 cm , NL = 10 cm

(iii) LM = 12 cm , MN = 13 cm , NL = 12 cm (iv) LM = 11 cm , MN = 11 cm , NL = 15.56 cm

(v) LM = 11 cm , MN = 12 cm , NL = 16.28 cm

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

(i) IJ = 12 cm , JK = 14 cm , KI = 10 cm (ii) IJ = 14 cm , JK = 11 cm , KI = 14 cm

(iii) IJ = 14 cm , JK = 15 cm , KI = 10 cm (iv) IJ = 12 cm , JK = 12 cm , KI = 12 cm

(v) IJ = 10 cm , JK = 11 cm , KI = 14.87 cm

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

(i) OP = 15 cm , PQ = 15 cm , QO = 15 cm (ii) OP = 13 cm , PQ = 13 cm , QO = 18.38 cm

(iii) OP = 11 cm , PQ = 15 cm , QO = 11 cm (iv) OP = 11 cm , PQ = 12 cm , QO = 14 cm

(v) OP = 10 cm , PQ = 13 cm , QO = 10 cm

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

(i) LM = 13 cm , MN = 13 cm , NL = 13 cm (ii) LM = 12 cm , MN = 19 cm , NL = 11 cm

(iii) LM = 14 cm , MN = 10 cm , NL = 15 cm (iv) LM = 12 cm , MN = 11 cm , NL = 16.28 cm

(v) LM = 12 cm , MN = 13 cm , NL = 13 cm

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

(i) PQ = 15 cm , QR = 10 cm , RP = 13 cm (ii) PQ = 11 cm , QR = 11 cm , RP = 15.56 cm

(iii) PQ = 14 cm , QR = 14 cm , RP = 14 cm (iv) PQ = 15 cm , QR = 11 cm , RP = 10 cm

(v) PQ = 10 cm , QR = 22 cm , RP = 15 cm

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

(i) DE = 12 cm , EF = 12 cm , FD = 16.97 cm (ii) DE = 15 cm , EF = 13 cm , FD = 19.85 cm

(iii) DE = 14 cm , EF = 13 cm , FD = 13 cm (iv) DE = 14 cm , EF = 20 cm , FD = 13 cm

(v) DE = 14 cm , EF = 19 cm , FD = 12 cm

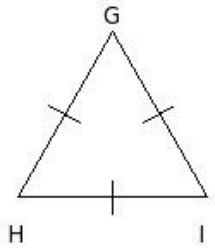
13. Which of the following are measures of an obtuse angled triangle ?

(i) AB = 13 cm , BC = 12 cm , CA = 12 cm (ii) AB = 12 cm , BC = 12 cm , CA = 10 cm

(iii) AB = 12 cm , BC = 12 cm , CA = 16.97 cm (iv) AB = 14 cm , BC = 22 cm , CA = 15 cm

(v) AB = 15 cm , BC = 11 cm , CA = 18.6 cm

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

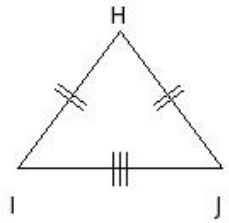


(i) GH = 13 cm , HI = 11 cm , IG = 12 cm (ii) GH = 11 cm , HI = 11 cm , IG = 11 cm

(iii) GH = 13 cm , HI = 12 cm , IG = 17.69 cm (iv) GH = 12 cm , HI = 11 cm , IG = 12 cm

(v) GH = 13 cm , HI = 13 cm , IG = 18.38 cm

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

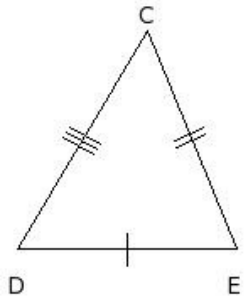


(i) HI = 12 cm , IJ = 12 cm , JH = 12 cm (ii) HI = 12 cm , IJ = 11 cm , JH = 16.28 cm

(iii) HI = 11 cm , IJ = 15 cm , JH = 10 cm (iv) HI = 10 cm , IJ = 12 cm , JH = 10 cm

(v) HI = 12 cm , IJ = 15 cm , JH = 10 cm

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

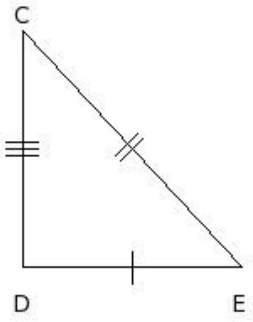


(i) CD = 11 cm , DE = 11 cm , EC = 11 cm (ii) CD = 11 cm , DE = 11 cm , EC = 15.56 cm

(iii) CD = 11 cm , DE = 15 cm , EC = 11 cm (iv) CD = 15 cm , DE = 13 cm , EC = 14 cm

(v) CD = 12 cm , DE = 11 cm , EC = 12 cm

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

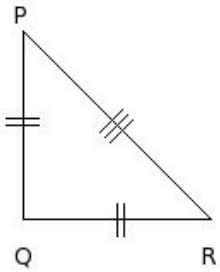


(i) CD = 14 cm , DE = 13 cm , EC = 19.1 cm (ii) CD = 13 cm , DE = 10 cm , EC = 10 cm

(iii) CD = 10 cm , DE = 21 cm , EC = 13 cm (iv) CD = 10 cm , DE = 14 cm , EC = 13 cm

(v) CD = 10 cm , DE = 10 cm , EC = 10 cm

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

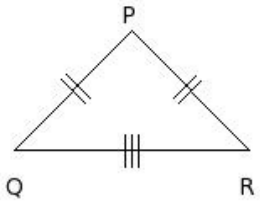


(i) PQ = 13 cm , QR = 12 cm , RP = 11 cm (ii) PQ = 11 cm , QR = 11 cm , RP = 15.56 cm

(iii) PQ = 13 cm , QR = 12 cm , RP = 15 cm (iv) PQ = 12 cm , QR = 22 cm , RP = 15 cm

(v) PQ = 13 cm , QR = 13 cm , RP = 13 cm

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

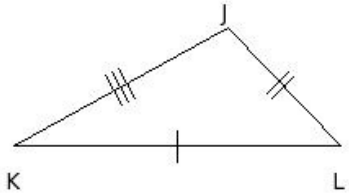


(i) PQ = 14 cm , QR = 26 cm , RP = 15 cm (ii) PQ = 10 cm , QR = 14 cm , RP = 10 cm

(iii) PQ = 13 cm , QR = 11 cm , RP = 17.03 cm (iv) PQ = 14 cm , QR = 14 cm , RP = 19.8 cm

(v) PQ = 12 cm , QR = 21 cm , RP = 11 cm

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



(i) JK = 12 cm , KL = 15 cm , LJ = 15 cm (ii) JK = 11 cm , KL = 11 cm , LJ = 15.56 cm

(iii) JK = 15 cm , KL = 12 cm , LJ = 19.21 cm (iv) JK = 14 cm , KL = 10 cm , LJ = 13 cm

(v) JK = 15 cm , KL = 20 cm , LJ = 10 cm

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

(i) $\angle B = 66.74°$, $\angle C = 56.63°$, $\angle D = 56.63°$ (ii) $\angle B = 49.09°$, $\angle C = 90°$, $\angle D = 40.91°$

(iii) $\angle B = 45°$, $\angle C = 90°$, $\angle D = 45°$ (iv) $\angle B = 45.21°$, $\angle C = 51.32°$, $\angle D = 83.47°$

(v) $\angle B = 60°$, $\angle C = 60°$, $\angle D = 60°$

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

(i) $\angle A = 42.71°$, $\angle B = 90°$, $\angle C = 47.29°$ (ii) $\angle A = 77.36°$, $\angle B = 51.32°$, $\angle C = 51.32°$

(iii) $\angle A = 60°$, $\angle B = 60°$, $\angle C = 60°$ (iv) $\angle A = 69.98°$, $\angle B = 48.74°$, $\angle C = 61.28°$

(v) $\angle A = 47.16°$, $\angle B = 41.8°$, $\angle C = 91.04°$

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

(i) $\angle C = 46.26°$, $\angle D = 66.87°$, $\angle E = 66.87°$ (ii) $\angle C = 64.78°$, $\angle D = 57.61°$, $\angle E = 57.61°$

(iii) $\angle C = 72.62°$, $\angle D = 62.96°$, $\angle E = 44.42°$ (iv) $\angle C = 45°$, $\angle D = 90°$, $\angle E = 45°$

(v) $\angle C = 60°$, $\angle D = 60°$, $\angle E = 60°$

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

(i) $\angle O = 106.2°$, $\angle P = 38.62°$, $\angle Q = 35.18°$ (ii) $\angle O = 72.62°$, $\angle P = 62.96°$, $\angle Q = 44.42°$

(iii) $\angle O = 60°$, $\angle P = 60°$, $\angle Q = 60°$ (iv) $\angle O = 46.97°$, $\angle P = 90°$, $\angle Q = 43.03°$

(v) $\angle O = 55.3°$, $\angle P = 76.33°$, $\angle Q = 48.37°$

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

(i) $\angle P = 45°$, $\angle Q = 90°$, $\angle R = 45°$ (ii) $\angle P = 60°$, $\angle Q = 60°$, $\angle R = 60°$

(iii) $\angle P = 41.08°$, $\angle Q = 58.67°$, $\angle R = 80.25°$ (iv) $\angle P = 115.6°$, $\angle Q = 32.2°$, $\angle R = 32.2°$

(v) $\angle P = 57.12°$, $\angle Q = 78.46°$, $\angle R = 44.42°$

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

(i) $\angle D = 45°$, $\angle E = 90°$, $\angle F = 45°$ (ii) $\angle D = 40.6°$, $\angle E = 90°$, $\angle F = 49.4°$

(iii) $\angle D = 51.32°$, $\angle E = 51.32°$, $\angle F = 77.36°$ (iv) $\angle D = 108.63°$, $\angle E = 31.12°$, $\angle F = 40.25°$

(v) $\angle D = 104.9°$, $\angle E = 36.03°$, $\angle F = 39.07°$

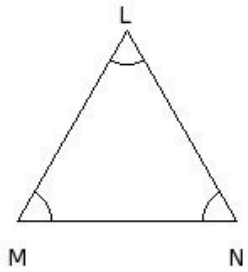
27. Which of the following are measures of an obtuse angled triangle ?

(i) $\angle F = 49.46°$, $\angle G = 49.46°$, $\angle H = 81.08°$ (ii) $\angle F = 112.88°$, $\angle G = 33.56°$, $\angle H = 33.56°$

(iii) $\angle F = 45°$, $\angle G = 90°$, $\angle H = 45°$ (iv) $\angle F = 62.97°$, $\angle G = 54.07°$, $\angle H = 62.96°$

(v) $\angle F = 40.91°$, $\angle G = 90°$, $\angle H = 49.09°$

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

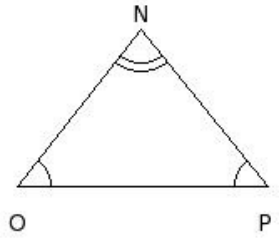


(i) $\angle L = 45°$, $\angle M = 90°$, $\angle N = 45°$ (ii) $\angle L = 49.09°$, $\angle M = 90°$, $\angle N = 40.91°$

(iii) $\angle L = 88.86°$, $\angle M = 45.57°$, $\angle N = 45.57°$ (iv) $\angle L = 41.08°$, $\angle M = 80.25°$, $\angle N = 58.67°$

(v) $\angle L = 60°$, $\angle M = 60°$, $\angle N = 60°$

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

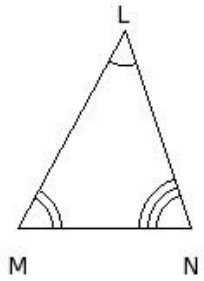


(i) $\angle N = 67.97°$, $\angle O = 59.41°$, $\angle P = 52.62°$ (ii) $\angle N = 58.67°$, $\angle O = 80.25°$, $\angle P = 41.08°$

(iii) $\angle N = 77.36°$, $\angle O = 51.32°$, $\angle P = 51.32°$ (iv) $\angle N = 60°$, $\angle O = 60°$, $\angle P = 60°$

(v) $\angle N = 47.29°$, $\angle O = 90°$, $\angle P = 42.71°$

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

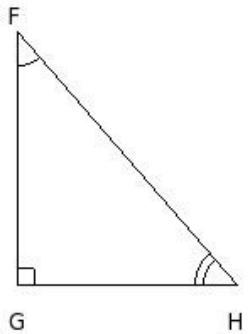


(i) $\angle L = 66.74°$, $\angle M = 56.63°$, $\angle N = 56.63°$ (ii) $\angle L = 88.86°$, $\angle M = 45.57°$, $\angle N = 45.57°$

(iii) $\angle L = 46.95°$, $\angle M = 61.26°$, $\angle N = 71.79°$ (iv) $\angle L = 60°$, $\angle M = 60°$, $\angle N = 60°$

(v) $\angle L = 45°$, $\angle M = 90°$, $\angle N = 45°$

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

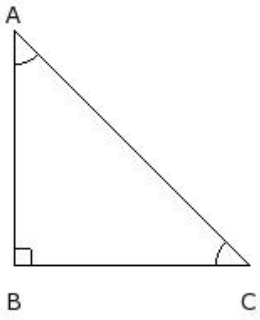


(i) $\angle F = 43.28°$, $\angle G = 63.03°$, $\angle H = 73.69°$ (ii) $\angle F = 61.28°$, $\angle G = 70.81°$, $\angle H = 47.91°$

(iii) $\angle F = 60°$, $\angle G = 60°$, $\angle H = 60°$ (iv) $\angle F = 40.91°$, $\angle G = 90°$, $\angle H = 49.09°$

(v) $\angle F = 99.42°$, $\angle G = 47.72°$, $\angle H = 32.86°$

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

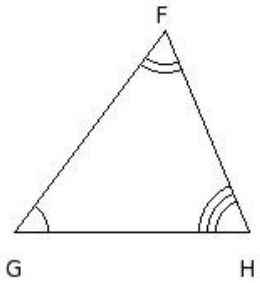


(i) ∠A = 60° , ∠B = 60° , ∠C = 60° (ii) ∠A = 45° , ∠B = 90° , ∠C = 45°

(iii) ∠A = 120.25° , ∠B = 25.59° , ∠C = 34.16° (iv) ∠A = 62.33° , ∠B = 55.33° , ∠C = 62.34°

(v) ∠A = 59.17° , ∠B = 51.32° , ∠C = 69.51°

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

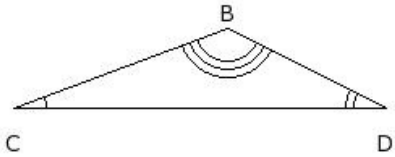


(i) ∠F = 114.22° , ∠G = 31.41° , ∠H = 34.37° (ii) ∠F = 54.46° , ∠G = 90° , ∠H = 35.54°

(iii) ∠F = 59.49° , ∠G = 53.13° , ∠H = 67.38° (iv) ∠F = 110.72° , ∠G = 39.79° , ∠H = 29.49°

(v) ∠F = 45° , ∠G = 90° , ∠H = 45°

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



(i) ∠B = 133.5° , ∠C = 20.3° , ∠D = 26.2° (ii) ∠B = 53.75° , ∠C = 90° , ∠D = 36.25°

(iii) ∠B = 70.81° , ∠C = 61.28° , ∠D = 47.91° (iv) ∠B = 45° , ∠C = 90° , ∠D = 45°

(v) ∠B = 72.62° , ∠C = 44.42° , ∠D = 62.96°

35. Find the measures of the three sides suitable to form a triangle?

(i) FG = 6 cm , GH = 8 cm , HF = 19 cm (ii) FG = 8 cm , GH = 8 cm , HF = 19 cm

(iii) FG = 12 cm , GH = 5 cm , HF = 19 cm (iv) FG = 11 cm , GH = 8 cm , HF = 20 cm

(v) FG = 10 cm , GH = 12 cm , HF = 12 cm

36. Find the measures of the three angles suitable to form a triangle?

(i) ∠J = 68.10° , ∠K = 110.90° , ∠L = 69.70° (ii) ∠J = 43.30° , ∠K = 44.80° , ∠L = 120.40°

(iii) ∠J = 69.51° , ∠K = 59.17° , ∠L = 51.32° (iv) ∠J = 84.10° , ∠K = 42.90° , ∠L = 57.40°

(v) ∠J = 74.50° , ∠K = 49.80° , ∠L = 38.30°

Assignment Key

1) (i)	2) (ii)	3) (v)	4) (i)	5) (ii)	6) (v)
7) (i)	8) (ii)	9) (iv)	10) (iv)	11) (ii)	12) (iii)
13) (iv)	14) (ii)	15) (iv)	16) (iv)	17) (i)	18) (ii)
19) (ii)	20) (v)	21) (v)	22) (ii)	23) (iii)	24) (iv)
25) (i)	26) (iii)	27) (ii)	28) (v)	29) (iii)	30) (iii)
31) (iv)	32) (ii)	33) (iii)	34) (i)	35) (v)	36) (iii)

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