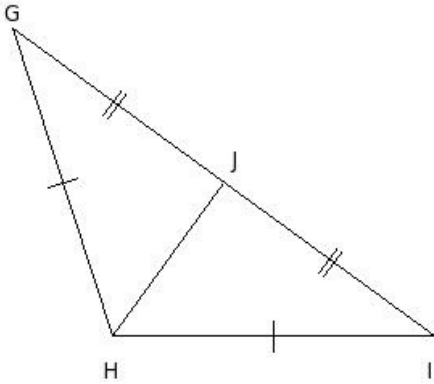


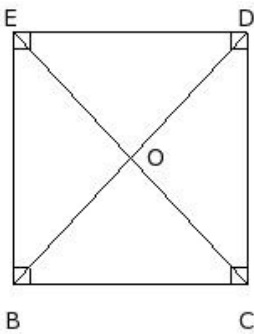


1. In the given figure, $\triangle GHI$ is an obtuse angled triangle. $\triangle GHJ \cong \triangle IHJ$ by which property?



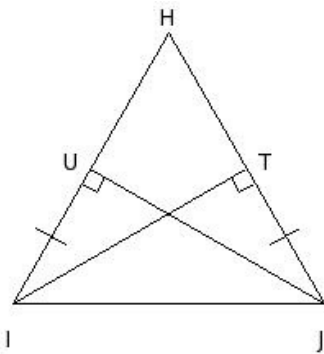
- (i) RHS Congruency
- (ii) ASA Congruency
- (iii) SAS Congruency
- (iv) SSS Congruency
- (v) not congruent

2. In the given figure, O is a point in the interior of the rectangle BCDE. Then



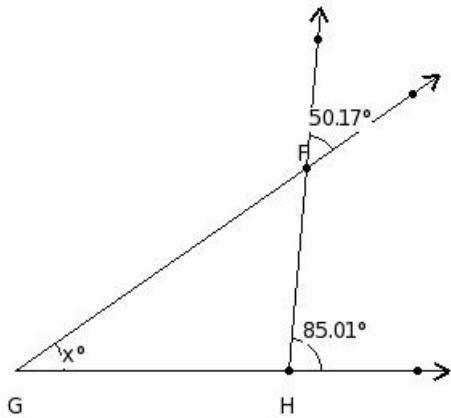
- (i) $OB^2 + OC^2 + OD^2 + OE^2 = BD^2 + CE^2$
- (ii) $OB^2 - OD^2 = OC^2 - OE^2$
- (iii) $OB^2 + OC^2 + OD^2 + OE^2 = BC^2 + CD^2 + DE^2 + EB^2$
- (iv) $OB^2 + OD^2 = OC^2 + OE^2$

3. With the given data in the figure, $\triangle UIJ \cong \triangle TJI$ by which property?



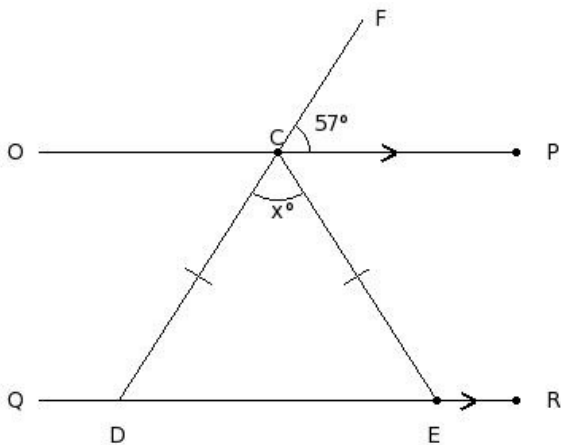
- (i) SAS Congruency
- (ii) SSS Congruency
- (iii) RHS Congruency
- (iv) ASA Congruency
- (v) not congruent

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



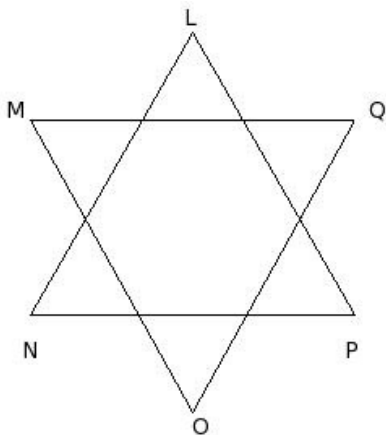
- (i) $x=35.84^\circ$ (ii) $x=33.84^\circ$ (iii) $x=36.84^\circ$ (iv) $x=32.84^\circ$ (v) $x=34.84^\circ$

5. In the given figure, $OP \parallel QR$, $\angle FCP = 57^\circ$ and $CD = EC$. Find the measure of x .



- (i) $x=67^\circ$ (ii) $x=64^\circ$ (iii) $x=66^\circ$ (iv) $x=65^\circ$ (v) $x=68^\circ$

6. In the given two equilateral triangles, find $\angle L + \angle N + \angle P + \angle M + \angle O + \angle Q$.

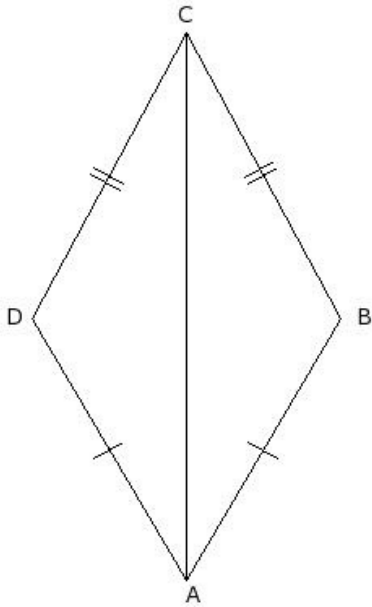


- (i) 362° (ii) 361° (iii) 359° (iv) 360° (v) 358°

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

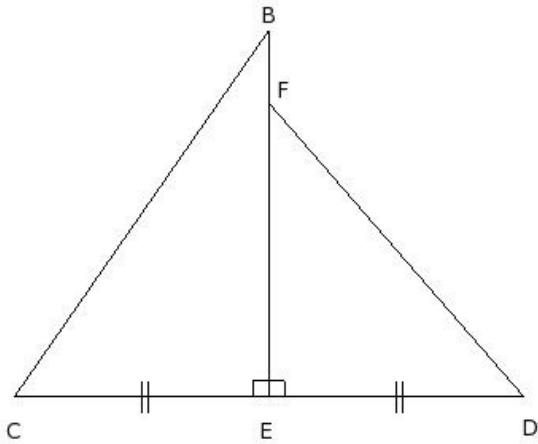
- (i) $JK = 14 \text{ cm}$, $KL = 14 \text{ cm}$, $LJ = 14 \text{ cm}$ (ii) $JK = 10 \text{ cm}$, $KL = 20 \text{ cm}$, $LJ = 14 \text{ cm}$
 (iii) $JK = 15 \text{ cm}$, $KL = 15 \text{ cm}$, $LJ = 10 \text{ cm}$ (iv) $JK = 15 \text{ cm}$, $KL = 13 \text{ cm}$, $LJ = 19.85 \text{ cm}$
 (v) $JK = 11 \text{ cm}$, $KL = 10 \text{ cm}$, $LJ = 13 \text{ cm}$

8. With the data in the given figure, $\triangle ADC \cong \triangle ABC$ by which property?



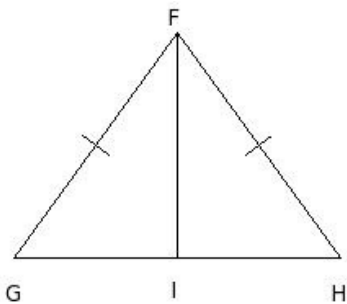
- (i) SSS Congruency (ii) ASA Congruency (iii) not congruent (iv) RHS Congruency (v) SAS Congruency

9. With the data in the figure, $\triangle BCE \cong \triangle FDE$ by which property?



- (i) SSS Congruency (ii) SAS Congruency (iii) not congruent (iv) ASA Congruency (v) RHS Congruency

10. In the given figure, $\triangle FGH$ is a triangle in which $FG = FH$ and I is a point on GH . Then

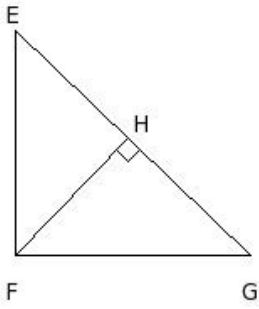


- (i) $FG^2 - FI^2 = FI \cdot GI$ (ii) $FG^2 - FI^2 = GI \cdot HI$ (iii) $FG^2 + FI^2 = GI \cdot HI$ (iv) $FG^2 + FI^2 = GH^2$
 (v) $FG^2 - FI^2 = FI \cdot HI$

11. The point of intersection of the medians of a triangle is called

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

12. With the data in the figure, $\triangle EFH \cong \triangle GFH$ by which property?



- (i) not congruent (ii) RHS Congruency (iii) ASA Congruency (iv) SSS Congruency (v) SAS Congruency

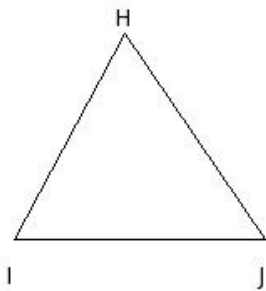
13. Find the measure of each of the two equal angles of an isosceles right-angled triangle.

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

14. The ratio between the base angle and the vertical angle of an isosceles triangle is 13 : 10. Find each angle of the triangle

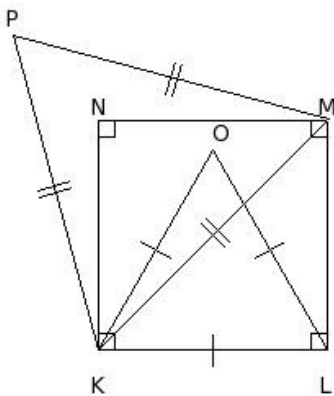
- (i) $A=50^\circ, B=65^\circ, C=65^\circ$ (ii) $A=48^\circ, B=67^\circ, C=65^\circ$ (iii) $A=52^\circ, B=65^\circ, C=63^\circ$ (iv) $A=48^\circ, B=65^\circ, C=67^\circ$
 (v) $A=50^\circ, B=63^\circ, C=67^\circ$

15. Identify the figure below



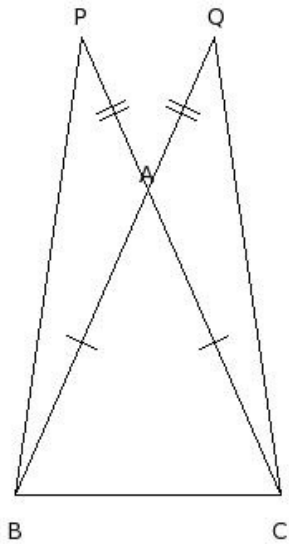
- (i) pentagon (ii) triangle (iii) heptagon (iv) octagon (v) nonagon

16. With the data in the figure, $\triangle KLO \cong \triangle KMP$ by which property?



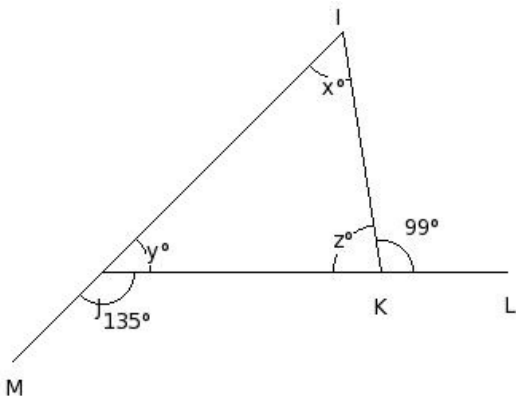
- (i) RHS Congruency (ii) ASA Congruency (iii) not congruent (iv) SAS Congruency (v) SSS Congruency

17. With the data in the given figure, $\triangle PBC \cong \triangle QCB$ by which property?



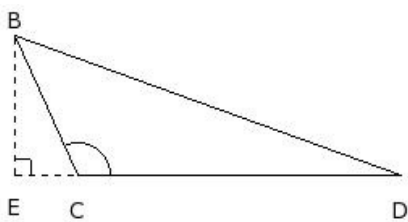
- (i) SAS Congruency (ii) RHS Congruency (iii) SSS Congruency (iv) ASA Congruency (v) not congruent

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



- (i) $x=54^\circ, y=45^\circ, z=81^\circ$ (ii) $x=52^\circ, y=45^\circ, z=83^\circ$ (iii) $x=52^\circ, y=47^\circ, z=81^\circ$ (iv) $x=56^\circ, y=45^\circ, z=79^\circ$
 (v) $x=54^\circ, y=43^\circ, z=83^\circ$

19. In the given figure, $\triangle BCD$ is an obtuse angled triangle and $BE \perp CD$. Then

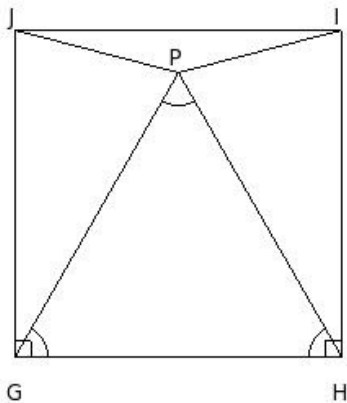


- (i) $BD^2 = BC^2 + CD^2 + 2CE \cdot DE$ (ii) $BD^2 = BC^2 + CD^2 + 2BC \cdot CD$ (iii) $BD^2 = BC^2 + CD^2 - 2CD \cdot CE$
 (iv) $BD^2 = BC^2 + CD^2 + CE^2$ (v) $BD^2 = BC^2 + CD^2 + 2CD \cdot CE$

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

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

21. In the given figure, GHJI is a square and $\triangle PGH$ is an equilateral triangle. $\triangle PJG \cong \triangle PIH$ by which property?

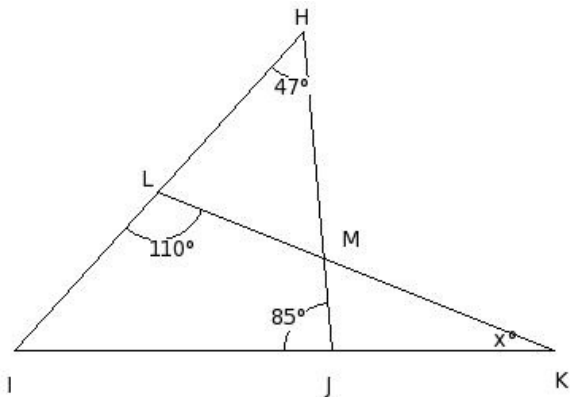


- (i) SAS Congruency (ii) not congruent (iii) RHS Congruency (iv) SSS Congruency (v) ASA Congruency

22. A ladder reaches a window which is 8 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 20 m

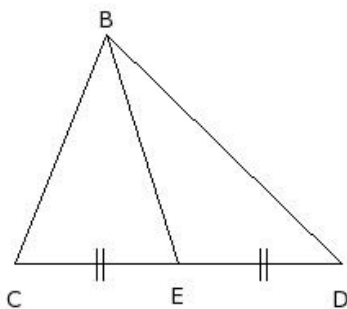
- (i) 29.33 m (ii) 32.33 m (iii) 31.33 m (iv) 28.33 m (v) 30.33 m

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



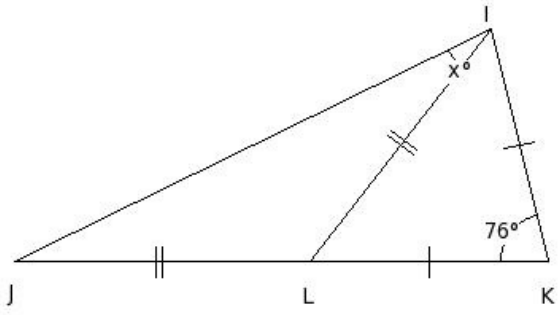
- (i) $x=23^\circ$ (ii) $x=22^\circ$ (iii) $x=21^\circ$ (iv) $x=24^\circ$ (v) $x=20^\circ$

24. In the given figure, $\triangle BCD$ is a triangle with BE being the median of CD. Then



- (i) $BC^2 + BD^2 = CD^2$ (ii) $BC^2 + BD^2 = 2 ED^2 + 2 BE^2$ (iii) $BC^2 + BD^2 = BE^2$ (iv) $BC^2 + BD^2 = 2 CE^2 + 2 ED^2$
 (v) $BC^2 + BD^2 = 2 CE^2 + 2 BE^2$

25. In the given figure, find the value of x .



- (i) $x=28^\circ$ (ii) $x=24^\circ$ (iii) $x=26^\circ$ (iv) $x=27^\circ$ (v) $x=25^\circ$

Assignment Key

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