

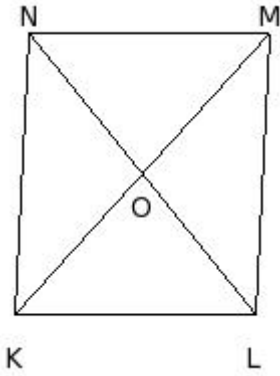
EduSahara™ Learning Center Assignment

Grade : Class IX, SSC

Chapter : Triangles

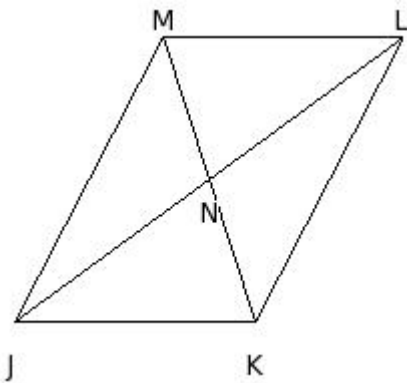
Name : Triangles Congruency Miscellaneous

1. In parallelogram KLMN , diagonals $\overline{LN}$ and $\overline{KM}$ intersect at O . Then $\triangle NKL \cong$



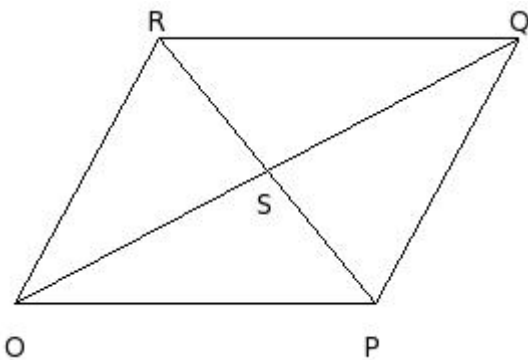
- (i) $\triangle LMN$ (ii) $\triangle MNO$ (iii) $\triangle KLM$ (iv) $\triangle KLO$ (v) $\triangle MNK$

2. In parallelogram JKLM , diagonals $\overline{KM}$ and $\overline{JL}$ intersect at N . Then $\triangle KLM \cong$



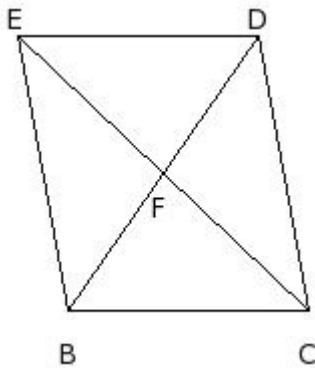
- (i) $\triangle MJK$ (ii) $\triangle JKL$ (iii) $\triangle LMJ$ (iv) $\triangle JKN$ (v) $\triangle LMN$

3. In parallelogram OPQR , diagonals $\overline{PR}$ and $\overline{OQ}$ intersect at S . Then $\triangle QRO \cong$



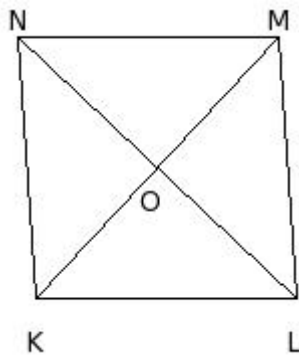
- (i) $\triangle QRS$ (ii) $\triangle ROP$ (iii) $\triangle OPQ$ (iv) $\triangle OPS$ (v) $\triangle PQR$

4. In parallelogram BCDE , diagonals $\overline{CE}$ and $\overline{BD}$ intersect at F . Then $\triangle BCD \cong$



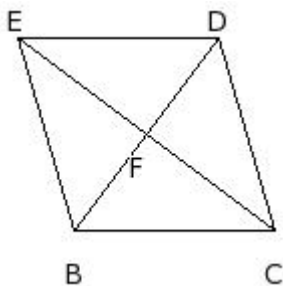
- (i) $\triangle CDE$ (ii) $\triangle EBC$ (iii) $\triangle BCF$ (iv) $\triangle DEB$ (v) $\triangle DEF$
-

5. In rhombus KLMN , diagonals $\overline{KM}$ and $\overline{LN}$ intersect at O . Then $\triangle NKL \cong$



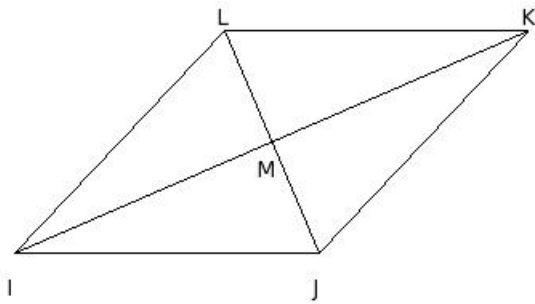
- (i) $\triangle LMN$ (ii) $\triangle KLM$ (iii) $\triangle MNK$ (iv) $\triangle OKL$
-

6. In rhombus BCDE , diagonals $\overline{BD}$ and $\overline{CE}$ intersect at F . Then $\triangle CDE \cong$



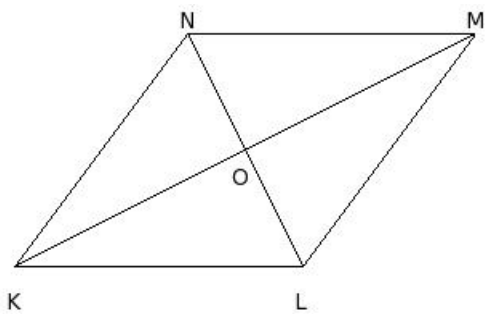
- (i) $\triangle FBC$ (ii) $\triangle BCD$ (iii) $\triangle DEB$ (iv) $\triangle EBC$
-

7. In rhombus IJKL , diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M . Then $\triangle KLI \cong$



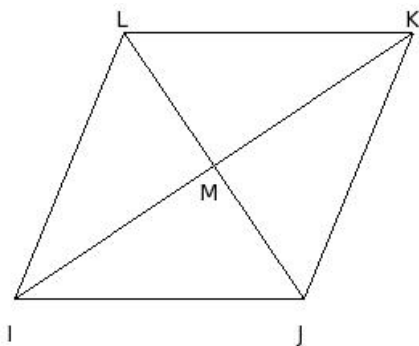
- (i) $\triangle MIJ$ (ii) $\triangle IJK$ (iii) $\triangle JKL$ (iv) $\triangle LIJ$

8. In rhombus KLMN, diagonals $\overline{KM}$ and $\overline{LN}$ intersect at O. Then $\triangle KLM \cong$



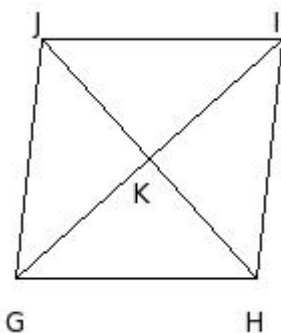
- (i) $\triangle LMN$ (ii) $\triangle OKL$ (iii) $\triangle MNK$ (iv) $\triangle NKL$

9. In rhombus IJKL, diagonals $\overline{IK}$ and $\overline{JL}$ intersect at M. Then $\triangle MIJ \not\cong$



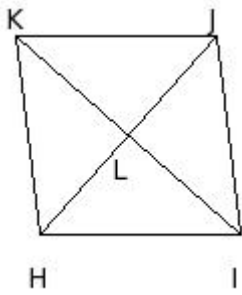
- (i) $\triangle LIJ$ (ii) $\triangle MJK$ (iii) $\triangle MKL$ (iv) $\triangle MLI$

10. In rhombus GHIJ, diagonals $\overline{GI}$ and $\overline{HJ}$ intersect at K. Then $\triangle KIJ \not\cong$



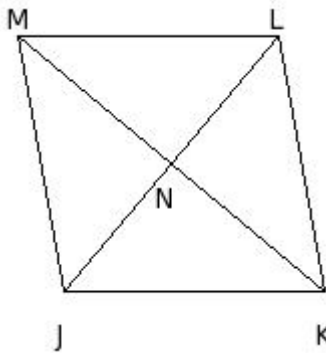
- (i) $\triangle KJG$ (ii) $\triangle KGH$ (iii) $\triangle KHI$ (iv) $\triangle JGH$

11. In rhombus $HIJK$, diagonals $\overline{HJ}$ and $\overline{IK}$ intersect at L . Then $\triangle LKH \not\cong$



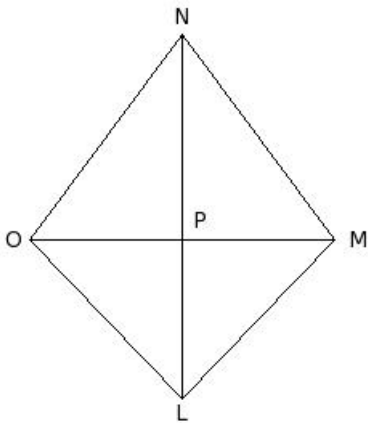
- (i) $\triangle LJK$ (ii) $\triangle KHI$ (iii) $\triangle LIJ$ (iv) $\triangle LHI$
-

12. In rhombus $JKLM$, diagonals $\overline{JL}$ and $\overline{KM}$ intersect at N . Then $\triangle NKL \not\cong$



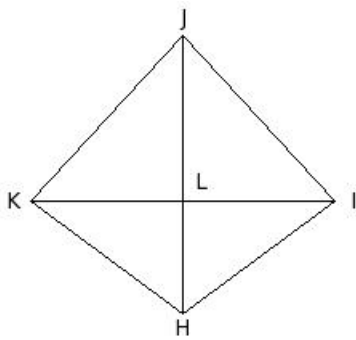
- (i) $\triangle NMJ$ (ii) $\triangle NJK$ (iii) $\triangle NLM$ (iv) $\triangle MJK$
-

13. In kite $LMNO$, $\overline{LN}$ and $\overline{MO}$ are diagonals. Then $\triangle NOL \cong$



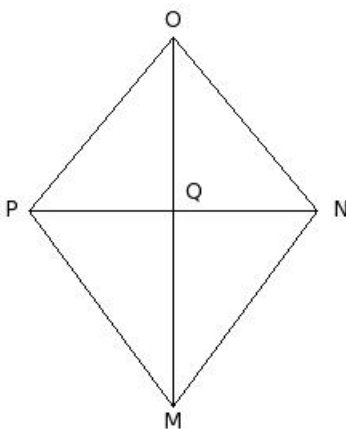
- (i) $\triangle NML$ (ii) $\triangle POL$ (iii) $\triangle OMN$ (iv) $\triangle PNM$ (v) $\triangle OML$
-

14. In kite $HIJK$, $\overline{HJ}$ and $\overline{IK}$ are diagonals. Then $\triangle JIH \cong$



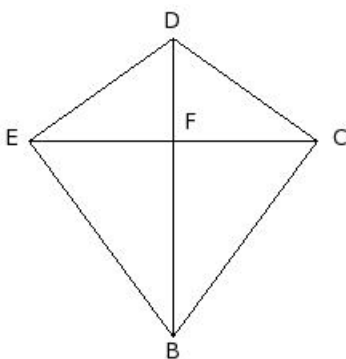
- (i) $\triangle LKH$ (ii) $\triangle KIH$ (iii) $\triangle LJI$ (iv) $\triangle KIJ$ (v) $\triangle JKH$
-

15. In kite $MNOP$, $\overline{MO}$ and $\overline{NP}$ are diagonals. Then $\triangle QPM \cong$



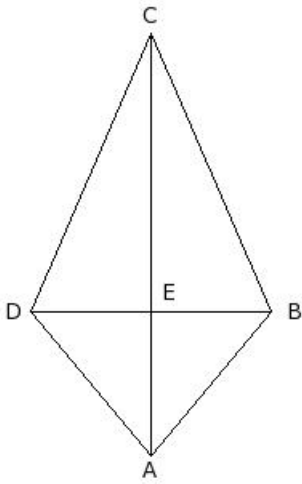
- (i) $\triangle QON$ (ii) $\triangle QOP$ (iii) $\triangle QNM$ (iv) $\triangle PNO$ (v) $\triangle PNM$
-

16. In kite $BCDE$, $\overline{BD}$ and $\overline{CE}$ are diagonals. Then $\triangle FCB \cong$



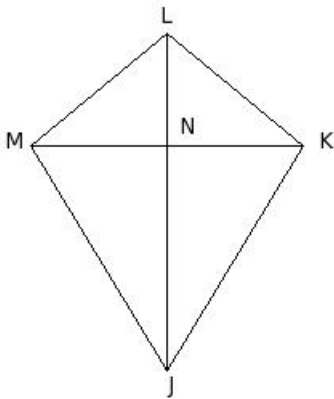
- (i) $\triangle ECB$ (ii) $\triangle FEB$ (iii) $\triangle FDC$ (iv) $\triangle ECD$ (v) $\triangle FDE$
-

17. In kite $ABCD$, $\overline{AC}$ and $\overline{BD}$ are diagonals. Then $\triangle ECD \cong$



- (i) $\triangle DBA$ (ii) $\triangle ECB$ (iii) $\triangle EBA$ (iv) $\triangle DBC$ (v) $\triangle EDA$

18. In kite JKLM, $\overline{JL}$ and $\overline{KM}$ are diagonals. Then $\triangle NLK \cong$



- (i) $\triangle MKL$ (ii) $\triangle NKJ$ (iii) $\triangle NLM$ (iv) $\triangle MKJ$ (v) $\triangle NMJ$

19. Which of the following are true ?

- a) Any two squares are similar
- b) Any two triangles are congruent
- c) Any two triangles are similar
- d) Any two circles are similar
- e) Any two circles are congruent
- f) Any two squares are congruent

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

20. Which of the following are true ?

- a) A square is a polygonal region
- b) A sector is a polygonal region
- c) A semi-circle is a polygonal region
- d) A circle is a polygonal region
- e) A triangle is a polygonal region

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

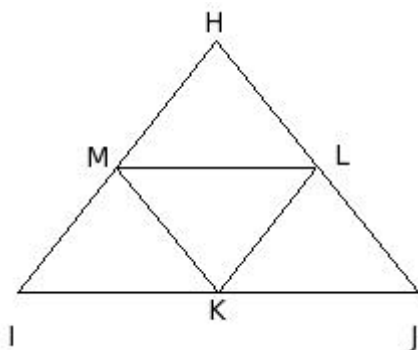
21. Which of the following are true ?

- a) Similar and congruent are not synonymous

- b) If two figures are congruent, then they are similar too
 c) Congruent figures have same area
 d) Similar figures have same area
 e) If two figures are similar, then they are congruent too
 (i) {d,a} (ii) {e,b} (iii) {d,a,b} (iv) {d,e,c} (v) {a,b,c}

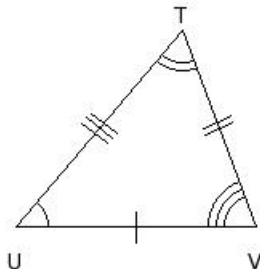
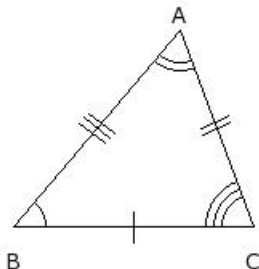
22. In the given figure, points K, L and M are the mid-points of sides IJ, JH and HI of $\triangle HIJ$. Which of the following are true?

- a) $\triangle HML \cong \triangle KLM$
 b) $\triangle MIK \cong \triangle KLM$
 c) $\triangle MIK \cong \triangle HML$
 d) $\triangle HML \cong \triangle LKJ$
 e) $\triangle HML \cong \triangle KML$



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

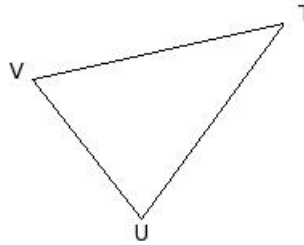
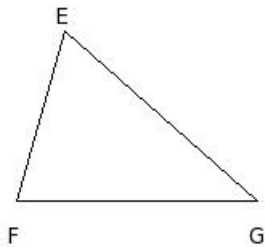
23. In the given figure, which of the following is true ?



- (i) $\triangle ABC \cong \triangle VUT$
 (ii) $\triangle ABC \cong \triangle TUV$
 (iii) $\triangle BCA \cong \triangle TUV$
 (iv) $\triangle ABC \cong \triangle UVT$
 (v) $\triangle ABC \cong \triangle VTU$

24. In the given figure, $\triangle EFG \cong \triangle VUT$. Which of the following are true ?

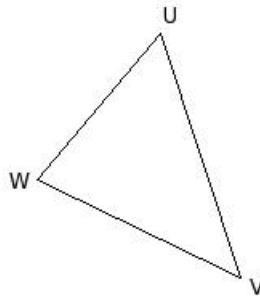
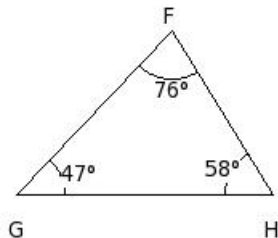
- a) $\angle E = \angle T$
 b) $\angle F = \angle U$
 c) $FG = VU$
 d) $FG = UT$
 e) $\angle G = \angle T$



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

25. In the given figure, $\triangle FGH \cong \triangle WVU$. Which of the following are true ?

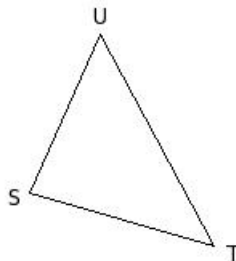
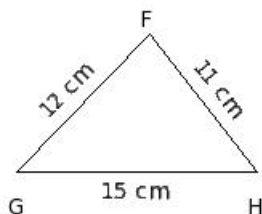
- a) $\angle U = 76^\circ$
 b) $\angle V = 47^\circ$
 c) $\angle V = 58^\circ$
 d) $\angle W = 76^\circ$
 e) $\angle U = 58^\circ$
 f) $\angle W = 47^\circ$



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

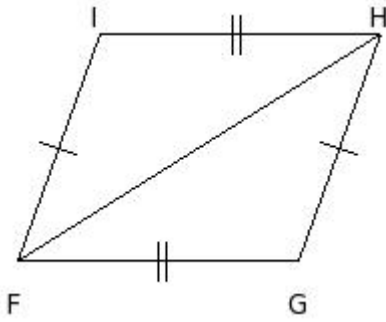
26. In the given figure, $\triangle FGH \cong \triangle STU$. Which of the following are true ?

- a) $TU = 12$ cm
 b) $ST = 15$ cm
 c) $TU = 15$ cm
 d) $ST = 12$ cm
 e) $US = 12$ cm
 f) $US = 11$ cm



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

27. In the given figure, which of the following is true ?



- (i) $\triangle FHI \cong \triangle FGH$
- (ii) $\triangle FHI \cong \triangle GHF$
- (iii) $\triangle FHI \cong \triangle HFG$
- (iv) $\triangle FHI \cong \triangle FGH$
- (v) $\triangle FHI \cong \triangle FHG$

28. In the given figure, which pair of triangles are not congruent ?

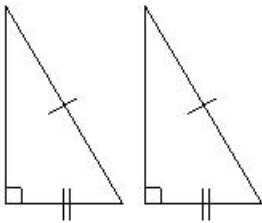


fig 3

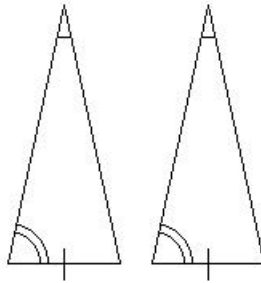


fig 4

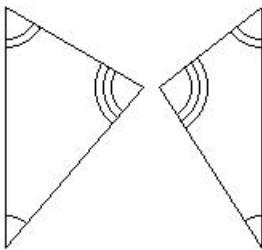


fig 1

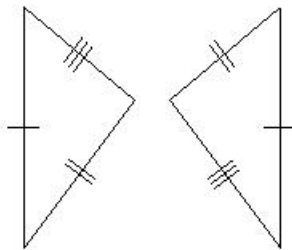


fig 2

- (i) fig 1 (ii) fig 4 (iii) fig 3 (iv) fig 2

29. In the given figure, which pair of triangles are not congruent ?

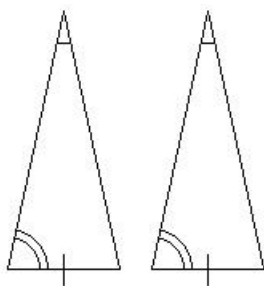


fig 3

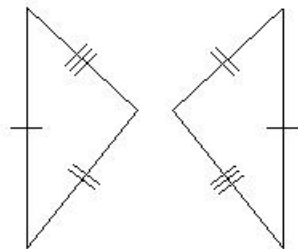


fig 4

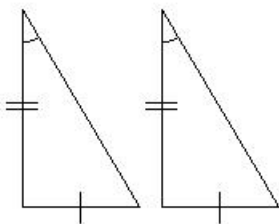


fig 1

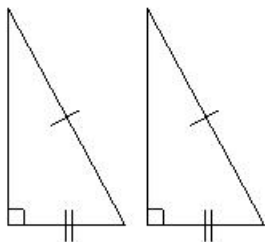


fig 2

(i) fig 1 (ii) fig 4 (iii) fig 2 (iv) fig 3

30. In the given figure, which pair of triangles are not congruent ?

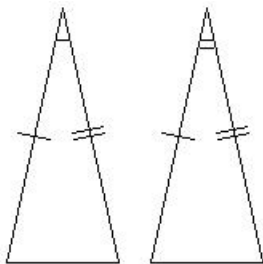


fig 3

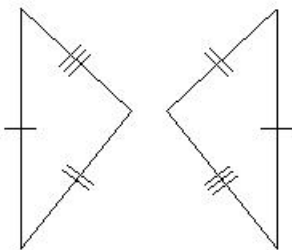


fig 4

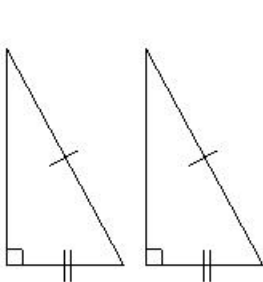


fig 1

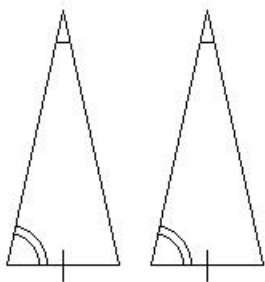


fig 2

(i) fig 2 (ii) fig 3 (iii) fig 4 (iv) fig 1

Assignment Key

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