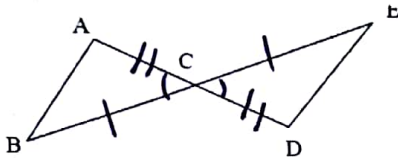


35) Given: C is the midpoint of \overline{AD} and \overline{BE}
 Prove: $\triangle ABC \cong \triangle DEC$

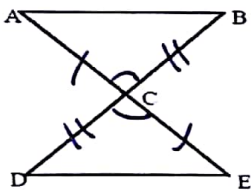


Statements	Reasons
① C is midpt of \overline{AD} and \overline{BE}	① Given
② $\overline{AC} \cong \overline{CD}$	② Definition of midpt
③ $\overline{BC} \cong \overline{EC}$	③ Definition of midpt
④ $\angle ACB \cong \angle DCE$	④ Vertical angles are \cong
⑤ $\triangle ABC \cong \triangle DEC$	⑤ SAS

36)

Given: $\overline{AC} \cong \overline{EC}$
 C bisects \overline{BD}

Prove: $\overline{AB} \cong \overline{ED}$



Statements	Reasons
① $\overline{AC} \cong \overline{EC}$	① Given
② C bisects \overline{BD}	② Given
③ $\overline{BC} \cong \overline{DC}$	③ Definition of bisect
④ $\angle ACB \cong \angle ECB$	④ vertical angles are \cong
⑤ $\triangle ACB \cong \triangle ECB$	⑤ SAS
⑥ $\overline{AB} \cong \overline{ED}$	⑥ CPCTC

1.) $x = 3$

2.) $x = 11$

3.) Symmetric

4.) The statements are facts and the reasons are definitions or theorems that justify the fact.

5.) Symmetric property of equality

6.) transitive property of equality

7.) reflexive property of equality

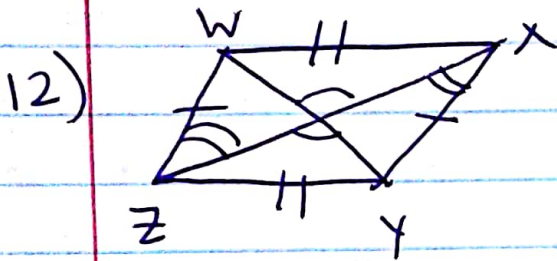
8.) multiplication property of equality

9.) Substitution

10.) subtraction property of equality

- 11.) $\angle RST$
 $\angle RSP$
 $\angle PST$

- 19.) $m\angle 1 = 26^\circ$
 $m\angle 5 = 154^\circ$
 $m\angle 6 = 154^\circ$
 $m\angle 7 = 26^\circ$



- 20.) $\angle B \cong \angle T$
 $\angle A \cong \angle E$
 $\angle X \cong \angle R$

13.) D

$$\overline{BA} \cong \overline{TE}$$

$$\overline{AX} \cong \overline{ER}$$

$$\overline{BX} \cong \overline{TR}$$

14.) D

15.) A

- 21.) $A'(8, 4)$
 $B'(16, 4)$
 $C'(16, -12)$

16.) C

17.) $y = 14$
 $x = 38\frac{1}{3}$

Enlargement

- 18.) $m\angle 1 = 115^\circ$
 $m\angle 2 = 115^\circ$
 $m\angle 3 = 148^\circ$
 $m\angle 4 = 32^\circ$

22.) 130°

- 23.) $x = 6$
 $m\angle DEF = 132^\circ$

24.) A

25.) D

26.) A

27.) D

28.) $X = 15$

29.) SSS SAS ASA AAS HL

30.) Corresponding Parts of Congruent Triangles are Congruent

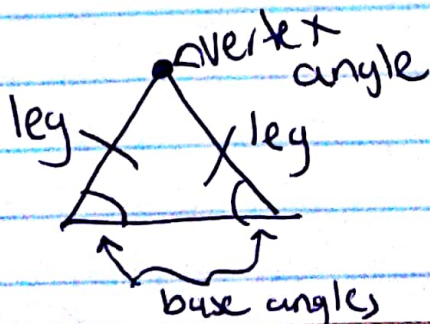
31.) A

32.) C

33.) B

34.) C

37.)



38.) other base angle 20°
vertex angle 140°

39.) D

40.) B

41.) A

42.) $x = -7$

43.) $x = -10$
 $EG = 14$

44.) $VX = 23$
 $HJ = 54$
 $m\angle VWH = 88^\circ$

45.) $a = 6$

46.) $BC = 24$

47.) $x = 6.5$
 $UV = 28.5$

48.) $x = 5$

49.) D

50) Opposite sides are \parallel
Opposite sides are \cong
Opposite angles are \cong
Consecutive sides are
supplementary
Diagonals bisect
each other

51) 13

52) 90°

53) 11°

54) 30

55) 16

56) $x = 3$

57) 28

58) 60°

(59) Similar polygons have congruent corresponding sides and the corresponding sides are proportional

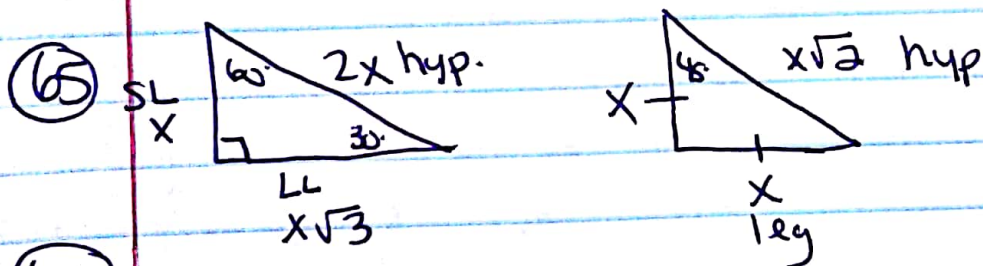
(60) $AA \sim SSS \sim SAS \sim$

(61) $x=2$

(62) B

(63) D

(64) B



(66)

$$a^2 + b^2 = c^2$$

(67)

$$a = 8 \quad b = \frac{8\sqrt{3}}{3}$$

(68)

$$a = 8 \quad b = 8$$

$$69) \begin{aligned} x &= 10 \\ y &= 5\sqrt{2} \end{aligned}$$

$$70) \begin{aligned} n &= 4 \\ m &= 8 \end{aligned}$$

$$71) \sqrt{95}$$

$$72) x = \sqrt{138}$$

$$73) x = 2\sqrt{14}$$

$$74) .78$$

$$75) \triangleright$$

$$76) 57.42^\circ$$

$$77) 28$$

$$78) 36.87^\circ$$

$$79) 73^\circ$$

$$80) V = 144\pi \text{ in}^3$$

$$81) 136 \text{ in}^3$$

$$82) B$$

$$83) A$$

$$84) 324 \pi \text{ ft}^2$$

$$85) 18 \pi \text{ ft}$$

$$86) 4\sqrt{2}$$

$$87) 24\sqrt{5}$$

$$88) 7\sqrt{3}$$

$$89) 8\sqrt{3} + 2$$

$$90) 7 - 5\sqrt{3}$$

$$(91) \quad 8x^5 - 6x^4 + 7x^3 - 4x^2 - 11x - 6$$

$$(92) \quad 3x^3 - 13x^2$$

$$(93) \quad 3ax^2 + 36x - 18$$

$$(94) \quad 24x^3 + 64x^2 - 6x - 56$$