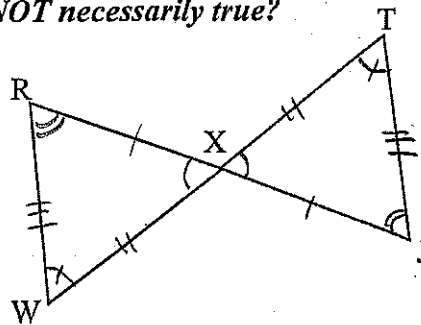


Key

12.1-12.5 Review

1) In the diagram, $\triangle RXW \cong \triangle JXT$. Which statement is NOT necessarily true?

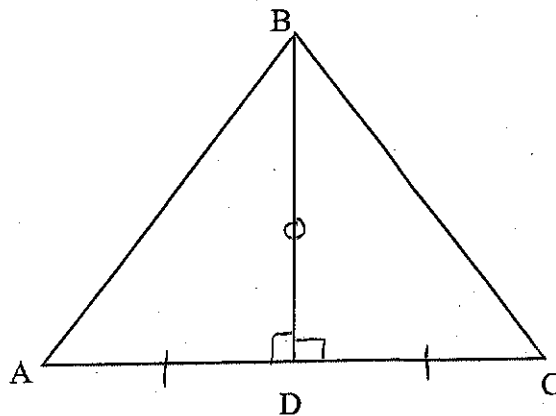
- a. $\angle J \cong \angle R$ True
- b. $\angle W \cong \angle T$ True
- c. $\overline{WX} \cong \overline{JX}$
- d. $\overline{RW} \cong \overline{JT}$ True



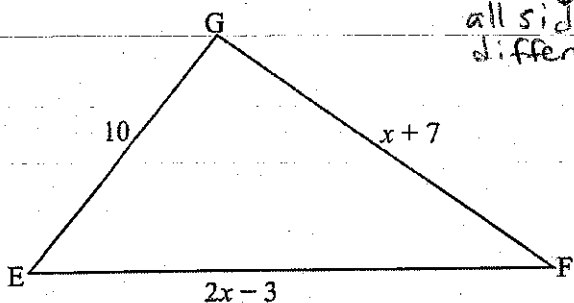
2) Given: \overline{BD} is \perp bisector of \overline{AC}

Prove: $\triangle ABD \cong \triangle CBD$

Statements	Reasons
1) \overline{BD} is \perp bisector of \overline{AC}	1) Given
2) $\angle BDA \cong \angle BDC$	2) If right \angle s then \cong
3) $\overline{AD} \cong \overline{CD}$	3) If segment bisected, then parts \cong .
4) $\overline{BD} \cong \overline{BD}$	4) Reflexive
5) $\triangle ABD \cong \triangle CBD$	5) SAS (3, 2, 4)



3) If the perimeter of $\triangle EFG$ is 32, is $\triangle EFG$ scalene, isosceles, or equilateral?



all sides different \downarrow 2 \cong sides \downarrow All sides \cong

$$10 + x + 7 + 2x - 3 = 32$$

$$3x + 14 = 32$$

$$\quad -14 \quad -14$$

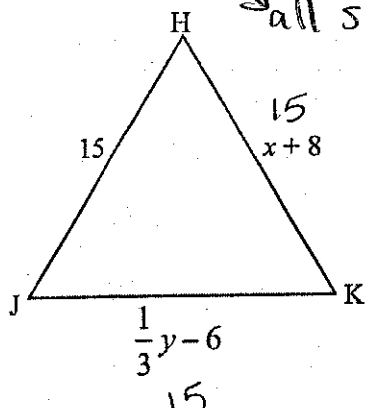
$$3x = 18$$

$$\quad \div 3 \quad \div 3$$

$$x = 6$$

$EG = 10$
 $GF = (6) + 7 = 13$
 $EF = 2(6) - 3 = 9$
 No sides \cong
Scalene

4) If $\triangle HJK$ is equilateral, what are the values of x and y ?



$$15 = x + 8$$

$$\quad -8 \quad -8$$

$$\underline{7 = x}$$

$$15 = \frac{1}{3}y - 6$$

$$\quad +6 \quad +6$$

$$\underline{21 = \frac{1}{3}y}$$

$$\quad \div 3 \quad \div 3$$

$$\underline{y = 63}$$