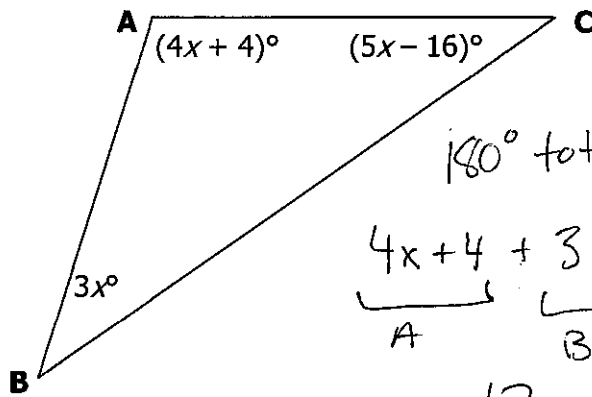


Key

Unit 3 Quiz Study Guide

Find the value of x



$$x = \underline{16}$$

180° total!

$$\underbrace{4x+4}_A + \underbrace{3x}_B + \underbrace{5x-16}_C = 180$$

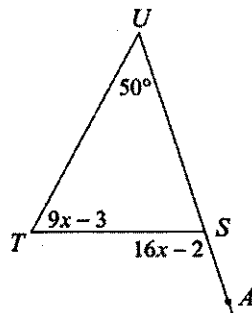
$$\underline{12x - 12 = 180}$$

$$\frac{12x = 192}{12} \quad \frac{192}{12} = 16$$

2. If the triangles below can be proved by one of the five properties (SSS, SAS, AAS, ASA, HL) write its initials in the space to the right. If not, write "NONE".

	None
	ASA
	HL
	SSS

Solve for x:



"Inside + Inside = Outside"

$$\underline{50} + \underline{9x - 3} = 16x - 2$$

$$47 + 9x = 16x - 2$$

$$\underline{-9x} \quad \underline{-9x}$$

$$47 = 7x - 2$$

$$+ 2 \quad + 2$$

$$49 = 7x$$

$$\boxed{x = 7}$$

What is true about similar triangles?

- A. They have proportional sides and proportional angles.
- B.** They have proportional sides and congruent angles.
- C. They have congruent sides and congruent angles.
- D. They have congruent sides and proportional angles.

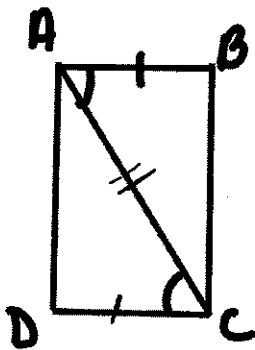
What is true about congruent triangles?

- A. They have proportional sides and proportional angles.
- B. They have proportional sides and congruent angles.
- C.** They have congruent sides and congruent angles.
- D. They have congruent sides and proportional angles.

Fill in the missing parts of each proof below:

Given: $\angle BAC \cong \angle DCA$ and $\overline{AB} \cong \overline{DC}$

Prove: $\angle B \cong \angle D$

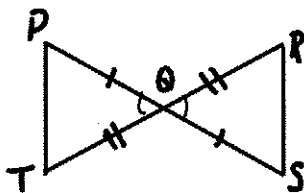


Statement	Reason
1. $\angle BAC \cong \angle DCA$	1. Given
2. $\overline{AB} \cong \overline{DC}$	2. Given
3. $\overline{AC} \cong \overline{AC}$	3. Reflexive
4. $\triangle ABC \cong \triangle CDA$	4. SAS
5. $\angle B \cong \angle D$	5. CPCTC

Method of
Choice:
SAS

Given: $\overline{PQ} \cong \overline{QS}$ and $\overline{TQ} \cong \overline{QR}$

Prove: $\triangle PQT \cong \triangle SQR$



Statement	Reason
1. $\overline{PQ} \cong \overline{QS}$	1. Given
2. $\overline{TQ} \cong \overline{QR}$	2. Given
3. $\angle PQT \cong \angle RQS$	3. Vertical
4. $\triangle PQT \cong \triangle SQR$	4. SAS

Method of
Choice:
SAS