

REVIEW: CONGRUENT TRIANGLES

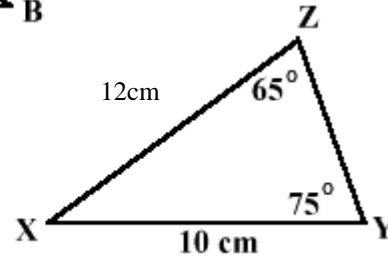
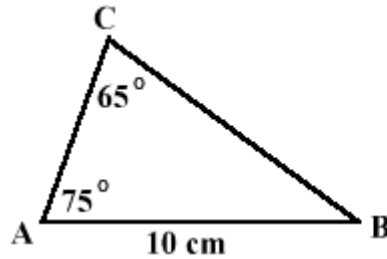
NAME: _____

DATE: _____

PERIOD: _____

PART 1: Complete each statement.

$\triangle ABC \cong \triangle YXZ$



1. $\angle CBA \cong$ _____

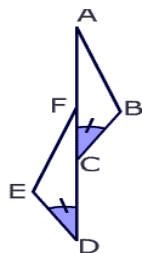
2. $\overline{BC} \cong$ _____

3. $\angle XZY \cong$ _____

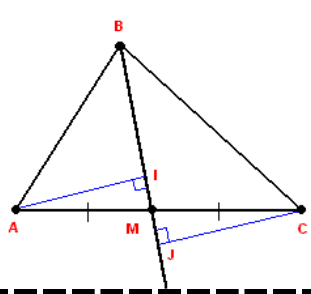
4. $AB =$ _____

Part 2: Write a congruence statement between each pair of triangles and state the postulate applied. If you cannot apply a postulate, write *no conclusion* can be made.

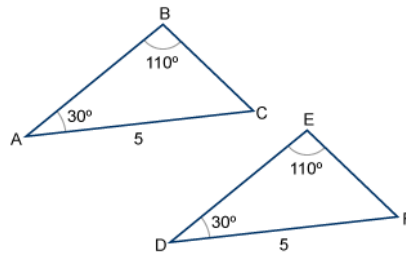
5. _____



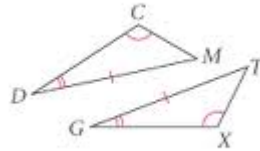
6. _____



7. _____



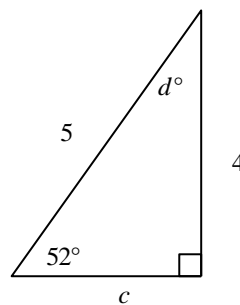
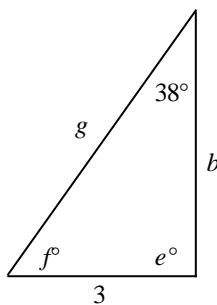
8. _____



9. _____



PART 3: The two triangles are congruent as suggested by their appearance. Find the value of the variables.



10. $b =$ _____

11. $c =$ _____

12. $d^\circ =$ _____

13. $e^\circ =$ _____

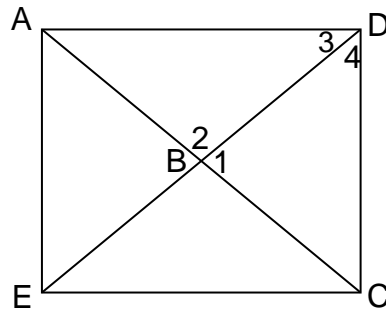
14. $f^\circ =$ _____

15. $g =$ _____

PART 4: Fill in any missing statements or reasons.

16. **Given:** B is the midpoint of \overline{AC}
 $\overline{BD} \perp \overline{AC}$

Prove: $\angle 3 \cong \angle 4$



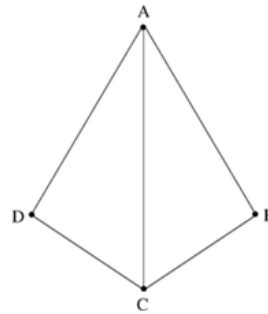
Statements	Reasons
1.	1. Given
2. $\overline{AB} \cong \overline{BC}$	2.
3. $\overline{BD} \perp \overline{AC}$	3.
4.	4. Definition of Perpendicular Lines
5. $\angle 2 \cong \angle 1$	5.
6.	6. Reflexive Property
7. $\triangle ABD \cong \triangle$ _____	7.
8.	8. CPCTC

Use the word bank below to fill in the statements and reasons for the following proof.

17. **Given:** \overline{CA} bisects $\angle BAD$

\overline{CA} bisects $\angle BCD$

Prove: $\triangle ABC \cong \triangle ADC$



Given	ASA	$\triangle ABC \cong \triangle ADC$
$\angle BCA \cong \angle DCA$	Given	$\overline{AC} \cong \overline{AC}$
Definition of Angle Bisector	Definition of Angle Bisector	Reflexive Property
\overline{CA} bisects $\angle BAD$	$\angle BAC \cong \angle DAC$	
\overline{CA} bisects $\angle BCD$		

Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.