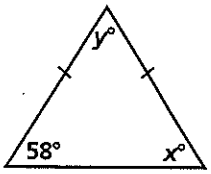
Name _____ Class _____ Date _____

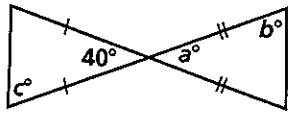
Chapter Test

Form B

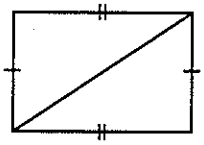
Chapter 4

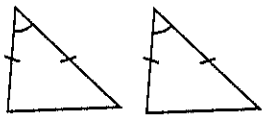
Find the values of the variables.

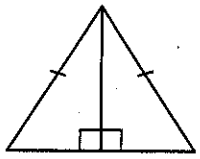
1. 

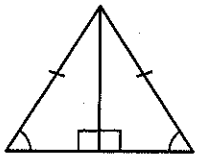
2. 

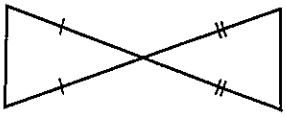
State the postulate or theorem you would use to prove each pair of triangles congruent. If the triangles cannot be proved congruent, write *not possible.*

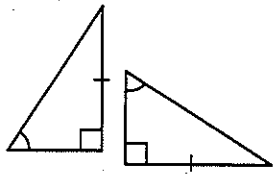
3. 

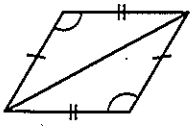
4. 

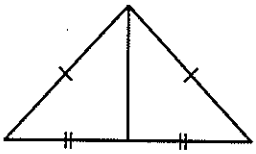
5. 

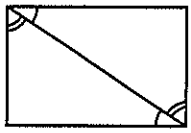
6. 

7. 

8. 

9. 

10. 

11. 

12. Draw a picture to represent $\triangle ABC \cong \triangle DEF$. Name all of the corresponding congruent parts.

Name _____ Class _____ Date _____

Chapter Test (continued) Form B

Chapter 4

13. When using SAS to prove triangles congruent, the angle of SAS must be

A. a right angle. **B.** included between the two sides.

C. a base angle. **D.** an acute angle.

$\triangle ABC \cong \triangle XYZ$. List each of the following.

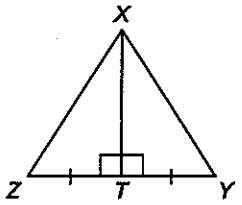
14. three pairs of congruent sides

15. three pairs of congruent angles

16. Given $\triangle XYZ$, what is $\overline{XT}$ best described as?

A. midpoint **B.** hypotenuse

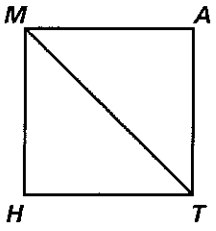
C. perpendicular bisector **D.** leg



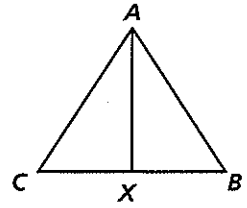
17. Given square $MATH$ with diagonal $\overline{MT}$, which theorem *cannot* prove $\triangle MTH \cong \triangle MTA$?

F. HL **G.** SSS

H. ASA **J.** SSA



18. Complete the two-column proof by providing the best possible reasons.
Given: $\overline{CX} \cong \overline{BX}$; $\triangle ABC$ is an equilateral triangle.
Prove: $\triangle AXC \cong \triangle AXB$



Statements	*Reasons*
1. $\overline{CX} \cong \overline{BX}$	a. ?
2. $\triangle ABC$ is an equilateral $\triangle$.	b. ?
3. $\overline{AC} \cong \overline{AB}$	c. ?
4. $\overline{AX} \cong \overline{AX}$	d. ?
5. $\triangle AXC \cong \triangle AXB$	e. ?