$\qquad$ Date $\qquad$

## UNIT 2 TEST REVIEW

Congruent Triangles: Determine whether each pair of triangles are congruent (SSS, SAS, ASA, AAS, or HL ). If not, write not congruent. If they are congruent, write a congruence statement.

1. $\Delta$ $\qquad$ $\cong \Delta$ $\qquad$ by $\qquad$ 2. $\Delta$ $\qquad$ $\cong \Delta$ $\qquad$ by $\qquad$ 3. $\Delta$ $\qquad$ $\cong \Delta$ $\qquad$ , by $\qquad$

2. $\Delta$ $\qquad$ $\cong \Delta$ $\qquad$ by $\qquad$ 5. $\Delta$ $\qquad$ $\cong \Delta$ $\qquad$ by $\qquad$ 6. $\qquad$ $\cong \Delta$ $\qquad$ by $\qquad$


Congruent Triangles: Write the congruence statement for each pair of triangles.
7. $\triangle R A C \cong \triangle$

8. $\triangle F O X \cong \triangle$


Proofs: Complete the following proofs.


| Statement | Reason |
| :--- | :--- |
| $1 . \angle \mathrm{Y} \cong \angle \mathrm{C}$ | 1. |
| $2 . \mathrm{A}$ is mdpt of $\overline{Y C}$ | 2. Given |
| 3. | 3. |
| 4. | 4. |
| $5 . \triangle Y Z A \cong \triangle \mathrm{CBA}$ | 5. |

10. 



| Statement | Reason |
| :--- | :--- |
| 1. | 1. |
| 2. $\overline{A C} \\| \overline{B D}$ | 2. |
| 3. $\angle \mathrm{CAD} \cong \angle \mathrm{BDA}$ | 3. |
| 4. | 4. |
| 5. $\triangle \mathrm{ACD} \cong \Delta$ | 5. |

Missing Information: State what additional information (Sides or Angles) is required to know that the triangles are congruent for the reason given. Hint: Mark the drawing!
11. ASA; $\qquad$ $\cong$ $\qquad$ 12. AAS; $\qquad$ $\cong$ $\qquad$ 13. HL; $\qquad$ $\cong$ $\qquad$


Triangle Theorems: Use your knowledge of triangle theorems to complete the following.
14. List the angles from smallest to biggest.

15. Show how you know that the following lengths can make a triangle: 9, 14, 22.

Free Response: Solve. Show all work.
16. Find the value of $x$.
17. Solve for $x$.

19. Find the missing segment.


