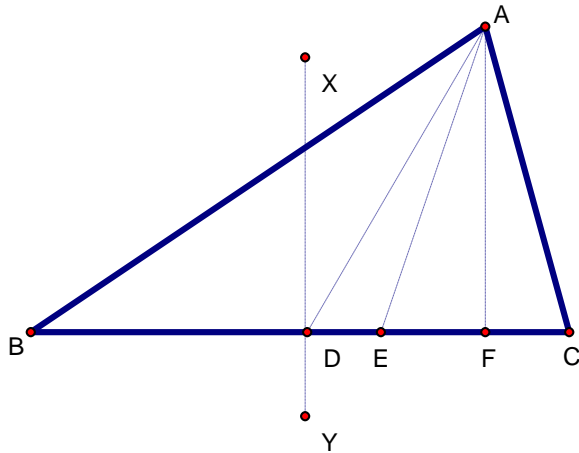


Geometry Chapter 5 Practice Test 2

Name _____



In the figure above, $BD = CD$, $\angle XDC = \angle AFC = 90^\circ$, and $\angle BAE = \angle CAE$.

- _____ 1. What line is a median of $\triangle ABC$?
- _____ 2. What line is an angle bisector of $\triangle ABC$?
- _____ 3. What line is a perpendicular bisector of $\triangle ABC$?
- _____ 4. What line is an altitude of $\triangle ABC$?

State if the following measurements could be the side lengths of a triangle.

- | | | | | | | | |
|----|----------|-----|----|-----|----------|-----|----|
| 5. | 3, 4, 6 | Yes | No | 6. | 10, 5, 4 | Yes | No |
| 7. | 8, 8, 15 | Yes | No | 8. | 7, 4, 7 | Yes | No |
| 9. | 3, 3, 6 | Yes | No | 10. | 1, 2, 3 | Yes | No |

11. In $\triangle ABC$ $\angle A = 4x$, $\angle B = 3x + 50$, and $\angle C = 4x + 20$. Determine the longest and shortest side of $\triangle ABC$.

Largest = _____

Shortest = _____

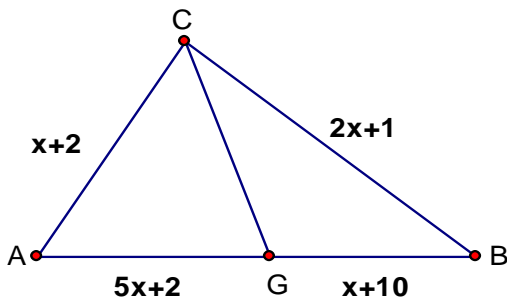
Tell what the third side of a triangle must fall between given the two side measurements.

12. 4, 5 _____
13. 20, 1 _____
14. 8, 20 _____
15. 10, 10 _____

16. In $\triangle ABC$ $A = (3, 4)$, $B = (2, -1)$, and $C = (9, 2)$.
Determine which angle is largest and which is smallest.

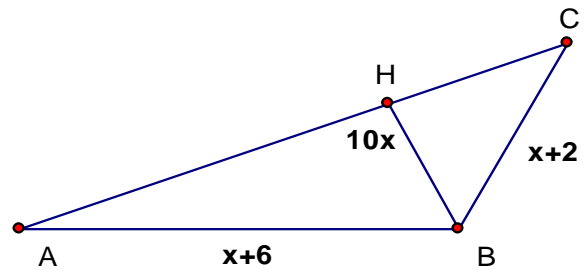
Largest = _____ Smallest = _____

17. Find BC if \overline{CG} is a median of $\triangle ABC$.



BC = _____

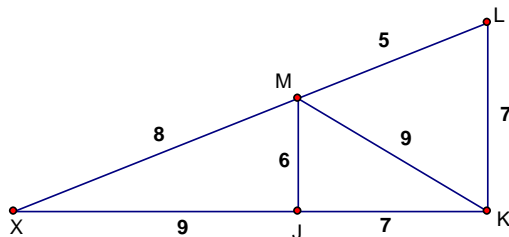
18. Find BC if \overline{BH} is an altitude of $\triangle ABC$.



BC = _____

Consider the figure below. Write an inequality ($>$, $<$) relating the two angles.
Figure is not drawn to scale and the measurements are not mathematically true.

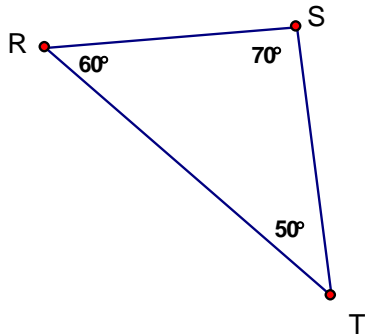
19. $\angle JMK$ _____ $\angle MJX$ 20. $\angle MKJ$ _____ $\angle MKL$



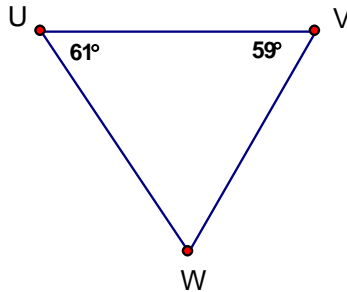
21. In $\triangle ABC$, $A = (4, 9)$, $B = (2, -1)$, and $C = (-6, 5)$.
What are the coordinates of X if \overline{AX} is a median of $\triangle ABC$? _____

Name the longest side in the figures below.

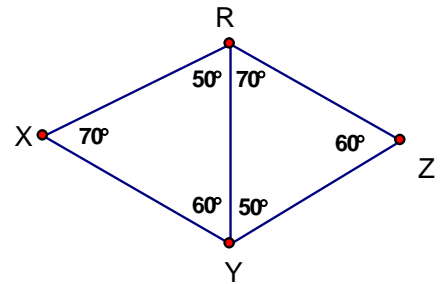
22. Longest = _____



23. Longest = _____



24. Longest = _____



- _____ 25. Which set of numbers can be a measure of the sides of a triangle.
 A. 2, 6, 3 B. 3, 10, 13 C. 4, 6, 1 D. 5, 7, 3

- _____ 26. In $\triangle RST$ $\angle R = x+10$, $\angle S = x+5$, and $\angle T = 3x-35$. Choose the list of sides of $\triangle RST$ that are ordered correctly from longest to shortest.
 A. $\overline{TR}, \overline{RS}, \overline{ST}$ B. $\overline{ST}, \overline{RS}, \overline{TR}$ C. $\overline{RS}, \overline{ST}, \overline{TR}$ D. $\overline{ST}, \overline{TR}, \overline{RS}$

27. Which angles are less than $\angle 5$ below? _____

28. Which angles are less than $\angle 3$ below? _____

