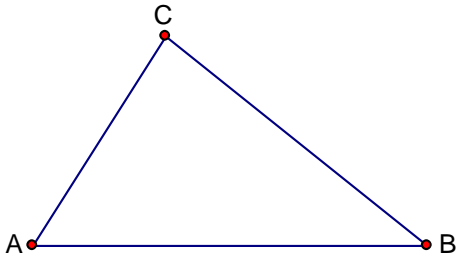


# Geometry Chapter 5 Practice Test 1

Name \_\_\_\_\_

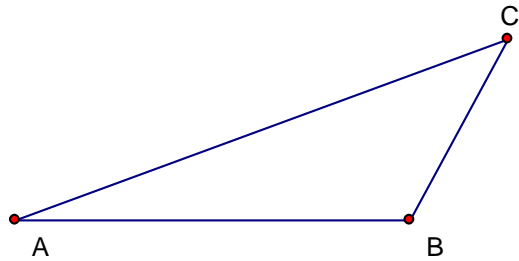
For 1-3 draw and label each. Mark each one to show that you understand the definition of each.

1.



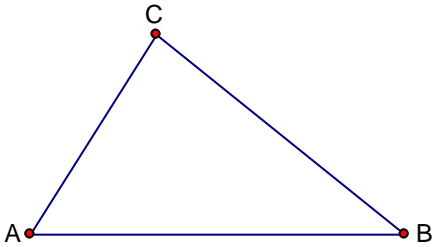
Altitude  $\overline{AD}$

2.



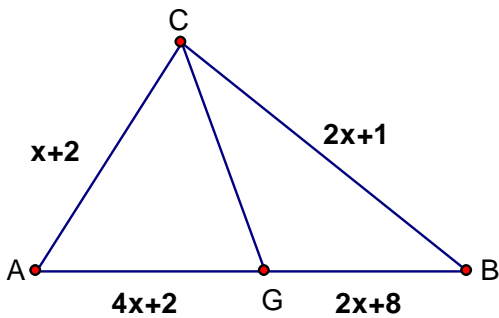
Median  $\overline{BD}$

3.



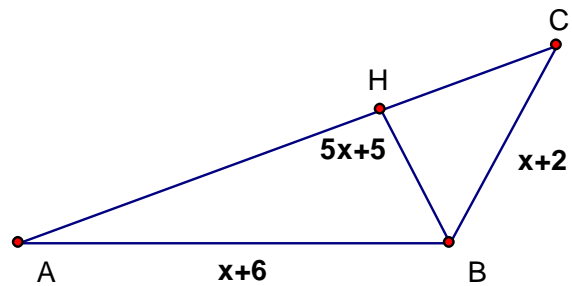
Angle bisector  $\overline{AD}$

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



BC = \_\_\_\_\_

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



BC = \_\_\_\_\_

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

- |     |          |     |    |     |          |     |    |
|-----|----------|-----|----|-----|----------|-----|----|
| 6.  | 1, 1, 1  | Yes | No | 7.  | 11, 6, 4 | Yes | No |
| 8.  | 8, 8, 18 | Yes | No | 9.  | 7, 1, 7  | Yes | No |
| 10. | 3, 5, 2  | Yes | No | 11. | 8, 2, 10 | Yes | No |

12. In  $\triangle ABC$   $\angle A = 4x$ ,  $\angle B = 3x - 15$ , and  $\angle C = 4x + 30$ .  
Determine the longest and shortest side of  $\triangle ABC$ .

Largest = \_\_\_\_\_ Shortest = \_\_\_\_\_

13. In  $\triangle ABC$   $A = (0, 4)$ ,  $B = (2, -3)$ , and  $C = (3, 1)$ .  
Determine which angle is largest and which is smallest.

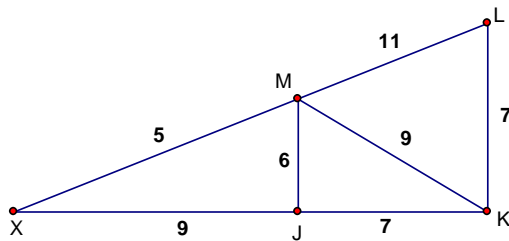
Largest = \_\_\_\_\_ Smallest = \_\_\_\_\_

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

- |     |        |       |
|-----|--------|-------|
| 14. | 2, 5   | _____ |
| 15. | 20, 16 | _____ |
| 16. | 18, 30 | _____ |
| 17. | 10, 45 | _____ |

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

18.  $\angle JMK$  \_\_\_\_\_  $\angle MJX$       19.  $\angle MKJ$  \_\_\_\_\_  $\angle MKL$



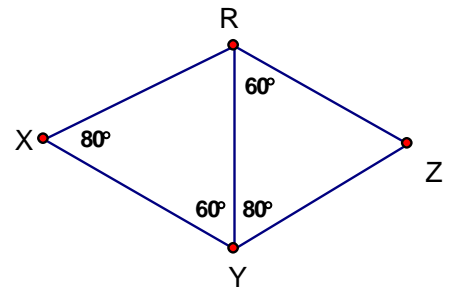
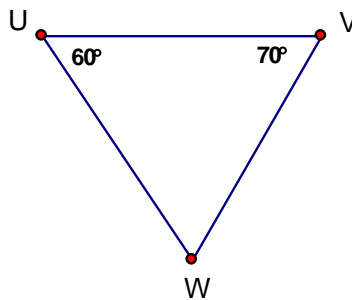
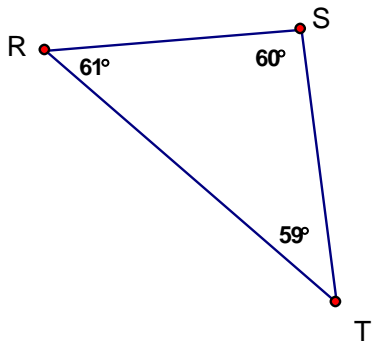
20. In  $\triangle ABC$ ,  $A = (1, 3)$ ,  $B = (4, -1)$ , and  $C = (-6, 3)$ .  
 What are the coordinates of X if  $\overline{CX}$  is a median of  $\triangle ABC$ ? \_\_\_\_\_

Name the longest side in the figures below.

21. Longest = \_\_\_\_\_

22. Longest = \_\_\_\_\_

23. Longest = \_\_\_\_\_



24. Which angles are less than  $\angle 1$  below? \_\_\_\_\_

25. Which angles are less than  $\angle 6$  below? \_\_\_\_\_

