

# Geometry Chapter 5 Practice Test 1

Name \_\_\_\_\_

State if the following measurements could be the side lengths of a triangle with YES or NO.

- |                   |                   |                     |
|-------------------|-------------------|---------------------|
| _____ 1. 2, 8, 1  | _____ 2. 4, 4, 4  | _____ 3. 2, 6, 10   |
| _____ 4. 1, 1, 7  | _____ 5. 3, 4, 6  | _____ 6. 10, 5, 4   |
| _____ 7. 8, 8, 15 | _____ 8. 7, 4, 7  | _____ 9. 3, 3, 6    |
| _____ 10. 1, 2, 3 | _____ 11. 5, 5, 5 | _____ 12. 1, 18, 10 |

13. In  $\triangle ABC$   $\angle A = 3x + 50$ ,  $\angle B = 4x$ , and  $\angle C = 4x + 20$ .

Determine the longest and shortest side of  $\triangle ABC$ . Longest = \_\_\_\_\_ Shortest = \_\_\_\_\_

14. In  $\triangle ABC$   $\angle A = 32x - 2$ ,  $\angle B = 29x + 2$ , and  $\angle C = x + 56$ .

Determine the longest and shortest side of  $\triangle ABC$ . Longest = \_\_\_\_\_ Shortest = \_\_\_\_\_

15. In  $\triangle ABC$   $\angle A = x + 50$ ,  $\angle B = 7x - 40$ , and  $\angle C = 2x + 30$ .

Determine the longest and shortest side of  $\triangle ABC$ . Longest = \_\_\_\_\_ Shortest = \_\_\_\_\_

16. If two sides of a triangle have the measurements of 3 and 7, what could the third leg be? \_\_\_\_\_

- A.  $4 < m > 10$       B.  $4 \leq m \leq 10$       C.  $4 < m < 10$       D. None of the above

17. If two sides of a triangle have the measurements of 8 and 7, what could the third leg be? \_\_\_\_\_

- A.  $1 < m < 15$       B.  $1 \leq m \leq 15$       C.  $7 < m < 8$       D. None of the above

18. If two sides of a triangle have the measurements of 9 and 9, what could the third leg be? \_\_\_\_\_

- A.  $1 < m < 18$       B.  $0 < m \leq 18$       C.  $0 < m < 9$       D. None of the above

19. If two sides of a triangle have the measurements of 1 and 1, what could the third leg be? \_\_\_\_\_

- A.  $1 < m < 1$       B.  $0 > m < 2$       C.  $0 < m < 2$       D. None of the above

20. In  $\triangle ABC$   $A = (1, 1)$ ,  $B = (5, -1)$ , and  $C = (9, 2)$ . Which angle is largest? \_\_\_\_\_

21. In  $\triangle ABC$   $A = (4, 1)$ ,  $B = (6, 8)$ , and  $C = (7, 3)$ . Which angle is largest? \_\_\_\_\_

Figure 1

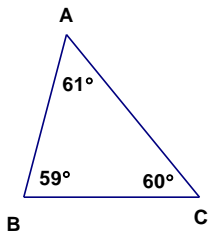


Figure 2

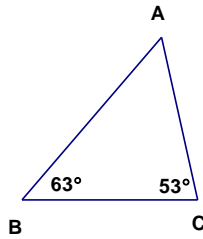


Figure 3

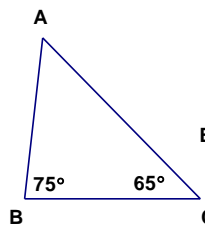


Figure 4

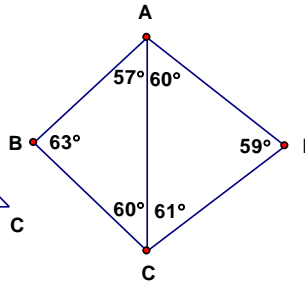
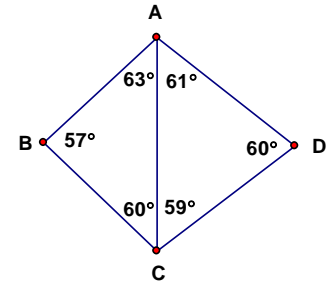


Figure 5



22. In Figure 1 above, what side is the longest side? \_\_\_\_\_
23. In Figure 2 above, what side is the longest side? \_\_\_\_\_
24. In Figure 3 above, what side is the longest side? \_\_\_\_\_
25. In Figure 4 above, what side is the longest side? \_\_\_\_\_
26. In Figure 5 above, what side is the longest side? \_\_\_\_\_

Figure 1

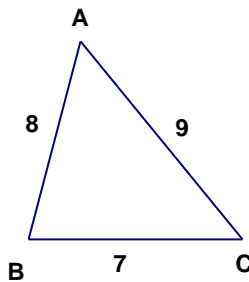


Figure 2

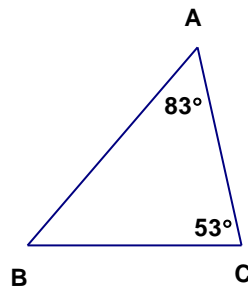


Figure 3

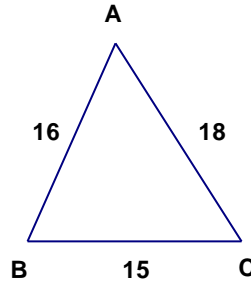
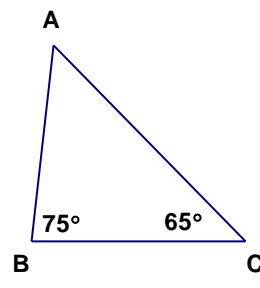


Figure 4



27. Which angle is the largest angle in figure 1 above? \_\_\_\_\_
28. Which side is the longest side in figure 2 above? \_\_\_\_\_
29. Which angle is the largest angle in figure 3 above? \_\_\_\_\_
30. Which side is the longest side in figure 4 above? \_\_\_\_\_
31. Which set of numbers could be a measure of the sides of a triangle? \_\_\_\_\_
- A. 2, 4, 2      B. 20, 4, 15      C. 4, 6, 1      D. 5, 7, 5