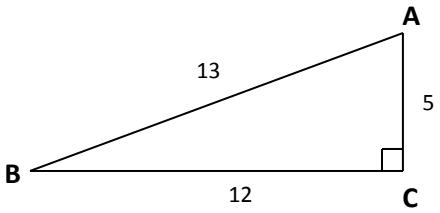
Name: _____

The Sine, Cosine, and Tangent Ratios

Use the diagram to express the ratio as a fraction.



1. $\sin A$ = _____ 2. $\cos A$ = _____

3. $\cos B$ = _____ 4. $\tan A$ = _____

5. $\tan B$ = _____ 6. $\sin B$ = _____

Complete. Use a graphing calculator.

7. $\sin 3° \approx$ _____ **8.** $\cos 30° \approx$ _____

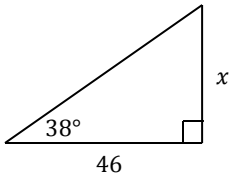
9. $\tan 48° \approx$ _____ **10.** $\sin 79° \approx$ _____

11. $\cos$ _____ ≈ 0.9455 **12.** $\sin$ _____ ≈ 0.8746

13. $\tan$ _____ ≈ 2.4751 **14.** $\cos$ _____ ≈ 0.6428

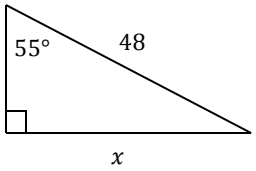
Use a graphing calculator to find the values of the variables. Find length correct to the nearest integer and angles to the nearest degree.

15.



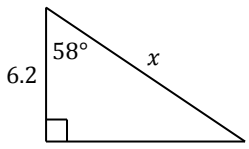
$x \approx$ _____

16.



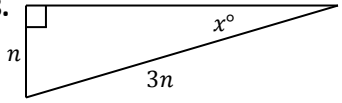
$x \approx$ _____

17.



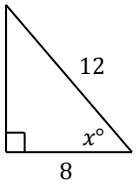
$x \approx$ _____

18.



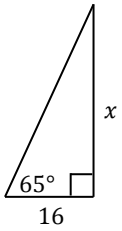
$x \approx$ _____

19.



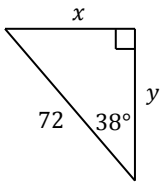
$x \approx$ _____

20.



$x \approx$ _____

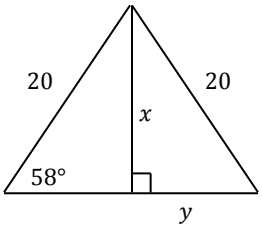
21.



$x \approx$ _____

$y \approx$ _____

22.

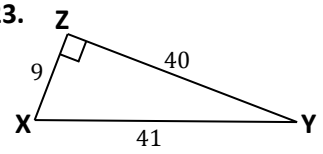


$x \approx$ _____

$y \approx$ _____

Express $tan\ X$ and $tan\ Y$ as ratios.

23.



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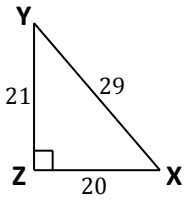

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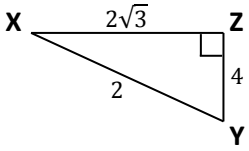

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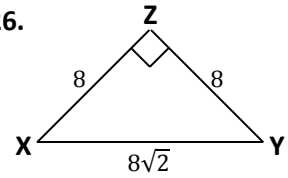


Complete.

27. $\tan 29° \approx$ _____

28. $\sin 66° \approx$ _____

29. $\cos 48° \approx$ _____

30. $\sin 6° \approx$ _____

31. $\tan 86° \approx$ _____

32. $\cos 80° \approx$ _____

Complete.

33. $\cos$ _____ ≈ 0.3746

34. $\tan$ _____ ≈ 0.4877

35. $\sin$ _____ ≈ 0.7547

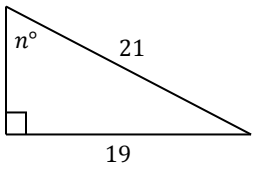
36. $\tan$ _____ ≈ 1.804

37. $\cos$ _____ ≈ 0.9903

38. $\sin$ _____ ≈ 0.3110

Find the values of the variables to the nearest integer.

39.



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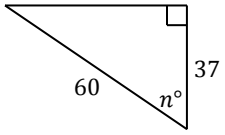

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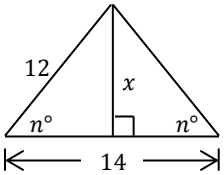

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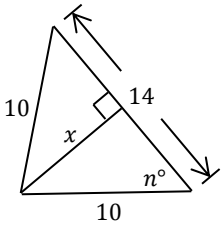
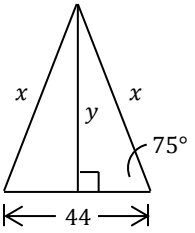


Find the values of x and y to the nearest integer.

43.



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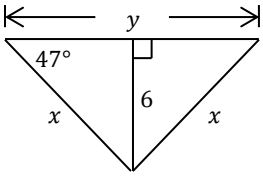

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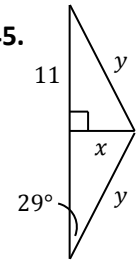

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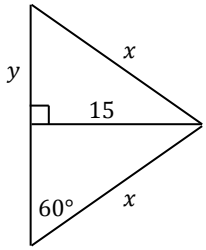
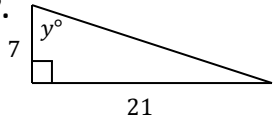


Find the values of x and y to the nearest tenth.

47.



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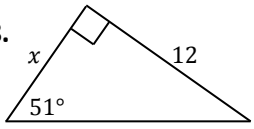

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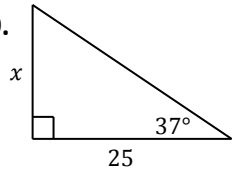

50.