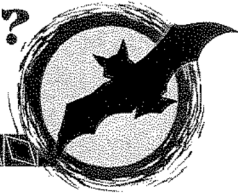


Name: _____ Per: _____ Date: _____

Show ALL work on a separate sheet of paper.

Who Turns Out the Lights on Halloween?



In Exercises 1-4, solve the equation. Round your solution to two decimal places.

- 1 $\sin 22^\circ = \frac{x}{15}$ 2 $\tan 75^\circ = \frac{n}{80}$ 3 $\sin 48^\circ = \frac{7}{a}$ 4 $\cos 6^\circ = \frac{92}{k}$

In Exercises 5-12, find the length of the side labeled x . Round to one decimal place.

- 5 6 7 8
- 9 10 11 12

In Exercises 13-15, find the required length. Round to one decimal place.

- 13 When a 20-ft ladder is leaned against a wall, it makes a 72° angle with the ground. How high up on the wall does the ladder reach?
-

- 14 A ship is sailing toward a small island 700 mi away. If the ship is 2° off course, by how many miles will it miss the island?
-

- 15 A cable from the top of a 100-ft telephone tower makes a 50° angle with the ground. How long is the cable?
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