Answer questions 1 to 5 according to the given graph

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| 1. What is the right angle? \_\_\_\_\_\_ 2. What is ? \_\_\_\_\_\_ 3. What is the hypotenuse? \_\_\_\_\_\_ 4. Select the correct statement 5. To find the length of you should:    1. Add the lengths from each leg.    2. Use the Pythagorean Theorem.    3. Multiply base times height divided 2.    4. Pray every night. |  |

1. Write a trigonometric ratio that involves the given data. Look at the example

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| EXAMPLE: |  |  |  |

Solve each situation

1. A 20-foot ladder leaning against a vertical wall reaches to a height of 16 feet. What is the sine of the angle that the ladder makes with the ground? Draw a picture about the situation.
2. An access ramp reaches a doorway that is 2.5 feet above the ground. If the ramp is 10 feet long, what is the sine of the angle that the ramp makes with the ground? Draw a picture about the situation.
3. A man is lying on the beach, flying a kite. He holds the end of the kite string at ground level, and estimates the angle of elevation of the kite to be . If the string is 450 ft long, how high is the kite above the ground? Draw a picture about the situation.
4. A biologist wants to know the width of a river so that instruments for studying thepollutants in the water can be set properly. From point the biologist walks downstream 100 feet and sights to point (see figure). From this sighting, it is determined that . How wide is the river?