

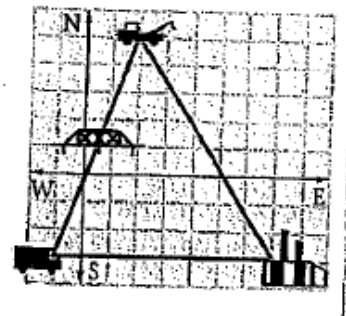
## Pythagorean Word Problems

Name: \_\_\_\_\_

On a weekend trip around California Amelia left her home in Modesto and drove 75 miles east to Yosemite National Park, then 70 miles south to Fresno, and finally 110 miles west to Monterey Bay. About how far is she from her starting point? Make sure you make a sketch.

Use the diagram below to answer the following questions. Each unit on the grid represents 1 mile. A van breaks down on its way to a factory. The driver calls a garage for a tow truck. There is a bridge halfway between the garage and the van.

- a. How far is the bridge from the van?



- b. The van is towed to the factory and then to the garage. How many miles did the truck tow the van?

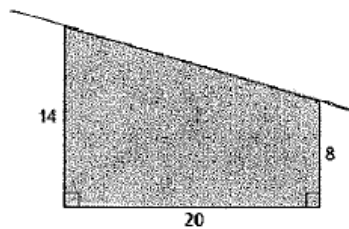
Two helicopters are flying at the same altitude on their way to a hospital with a patient. Helicopter A is 20 miles due west of the hospital. Helicopter B is 15 miles south and 15 miles east of the hospital.

a. How far apart is Helicopter A from B?

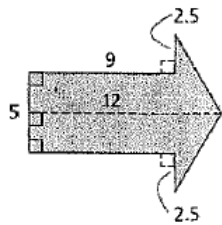
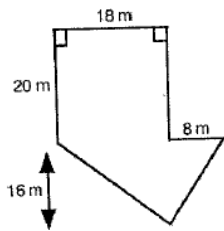
b. How far from the hospital is each helicopter?

What is the perimeter and area of an equilateral triangle that is 20 cm?

This is a side view of shed that you want to build. You need to figure out how long the boards need to be for the roof so that you can get them cut correctly. You want a four foot overhang on each side of the shed so you can place things outside the shed and they won't get wet in the WA winters.



Find the area and perimeter of the following shapes. If necessary round to the nearest tenth and show all your work. Make sure you identify with your math which answer is area and which one is perimeter.



An anemometer is a device used to measure wind speed. To make sure the anemometer doesn't get blown over it is attached to the top of pole which is staked with wires. Each anemometer has four support wires that are attached to the pole 5 feet above the ground. The wires are then staked 4 feet away from the pole. To make sure the wire doesn't break in a wind storm there must be an extra foot of length on each side to wrap the wire around the stake and/or pole. How much wire is needed for one anemometer to be completely supported?

Dan wants to build a sandbox in the shape of a rectangle that is 13 feet by 20 feet. He wants half of the sandbox to be filled with sand and the other with toys. Because of this Dan wants to build a divider to go diagonally across the sandbox. How long will the boards need to be to divide the sandbox this way?

Dan needs to purchase sand for the sandbox which is \$4.57 per square foot. How much will it cost him to purchase the sand he needs?