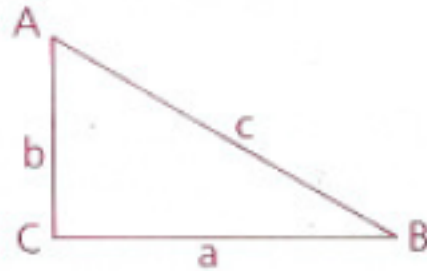


Objective

Students will be able to use the Pythagorean theorem.

If the square of the measure of one side of a triangle equals the sum of the squares of the measures of the other two sides, then the angle opposite the longest side is a right angle.

If $a^2 + b^2 = c^2$, then
 $\triangle ABC$ is a right \triangle
and $\angle C$ is the right \angle .



If c is the length of the longest side of a triangle and

- $a^2 + b^2 > c^2$, then the triangle is acute
- $a^2 + b^2 = c^2$, then the triangle is right
- $a^2 + b^2 < c^2$, then the triangle is obtuse

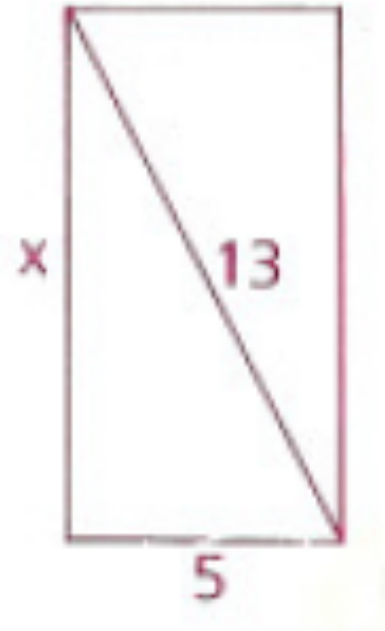
Find the perimeter of the rectangle.

$$x^2 + 5^2 = 13^2$$

$$x^2 + 25 = 169$$

$$x^2 = 144$$

$$x = \underline{\pm 12} \text{ (Reject -12)}$$



$$\text{Perimeter} = 5 + 12 + 5 + 12 = 34$$

Nadia skipped 3 miles north, 2 miles east, 4 miles north, 13 miles east, and 1 mile north. How far is Nadia from where she started?

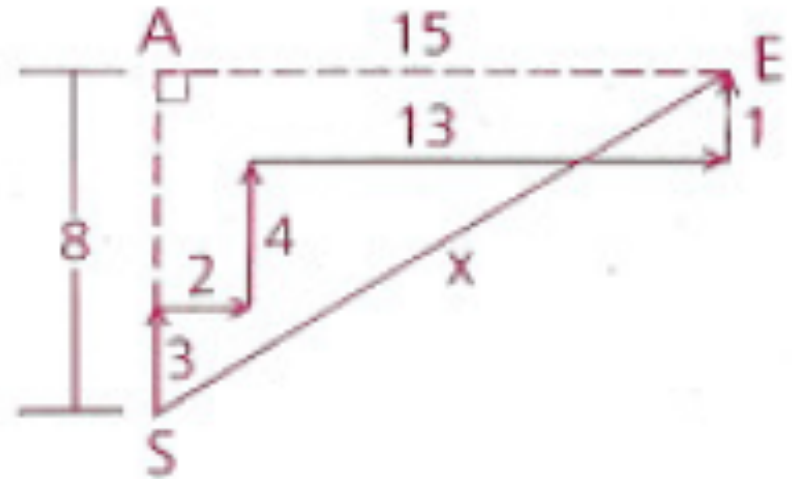
****draw a picture to help**

$$8^2 + 15^2 = x^2$$

$$64 + 225 = x^2$$

$$289 = x^2$$

$$\pm 17 = x \text{ (Reject -17)}$$



She is 17 miles Northeast

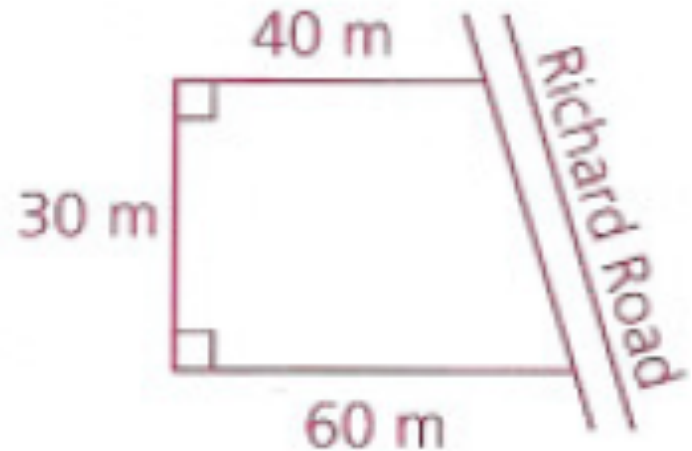
George and Diane bought a plot of land along Richard Road with the dimensions shown.

a) Find the area of the plot.

1500 sq. meters

b) Find, to the nearest meter, the length of frontage on Richard Road.

approx. 36 meters



Homework

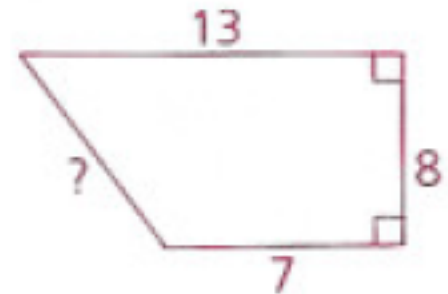
p.387: 2, 4, 7, 13, 17

Homework

p.387: 2, 4, 7, 13, 17

- 2 Find the length of the diagonal of a square with perimeter 12 cm.
- 4 Find the perimeter of a rectangle whose diagonal is 17 mm long and whose base is 15 mm long.

- 7** Find the missing length in the trapezoid.



- 13** Al Capone walked 2 km north, 6 km west, 4 km north, and 2 km west. If Big Al decides to “go straight,” how far must he walk across the fields to his starting point?

- 17** Solve for x in the partial spiral to the right.

