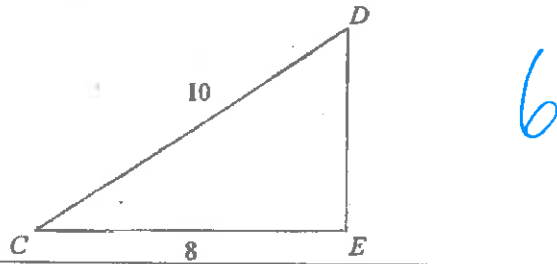


Pythagorean Theorem Study Guide

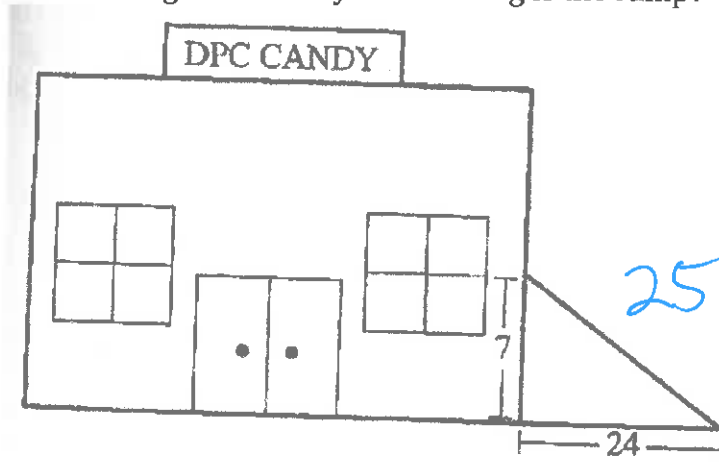
1. Given triangle CDE (shown below) with a right angle at point E, what is the length of leg DE?



Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number	length/distance
		Equation	area
		Ratio	ratio

Skills needed: Use Pythagorean Theorem

2. A ramp used to access the side entrance to the DPC Candy Store, which is located 7 meters above the ground, covers 24 meters along the level ground from the edge of the building. How many meters long is the ramp?



Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number	length/distance
		Equation	area
		Ratio	ratio

Skills needed: Use Pythagorean Theorem

Name: _____

Date: ___ Per: ___

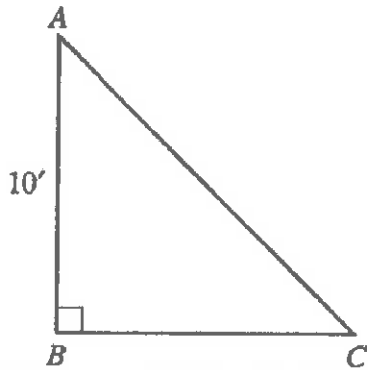
Pythagorean Theorem Study Guide

3. What is the length, in feet, of the hypotenuse of a right triangle with legs that are 6 feet long and 7 feet long, respectively?

Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number Equation Ratio	length/distance area ratio

Skills needed: Use Pythagorean theorem
 $\sqrt{85} \approx 9.2 \text{ ft}$

4. In the isosceles right triangle below, AB = 10 feet. What is the length, in feet, of AC?



$10\sqrt{2} = 14.1 \text{ ft}$

Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number Equation Ratio	length/distance area ratio

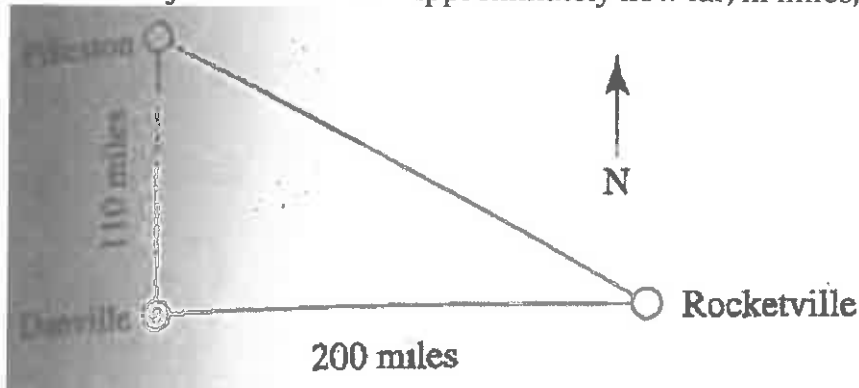
Skills needed: Use Pythagorean theorem

Name: _____

Date: ___ Per: ___

Pythagorean Theorem Study Guide

5. Dave is in Pikeston and needs to go to Danville, which is about 110 miles due south of Pikeston. From Danville, he'll head east to Rocketville, about 200 miles from Danville. As he sets out on his trip, a plane takes off from Pikeston airport and flies directly to Rocketville. Approximately how far, in miles, does the plane fly?



Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number	length/distance
		Equation	area
		Ratio	ratio

Skills needed: Use Pythagorean Theorem

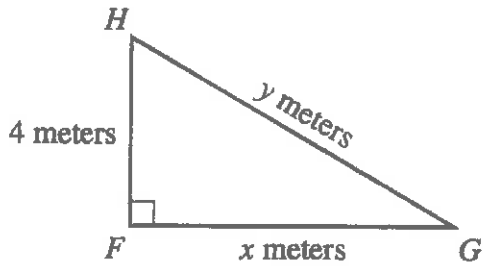
$$10\sqrt{521} \approx 228 \text{ mi}$$

Name: _____

Date: ___ Per: ___

Pythagorean Theorem Study Guide

6. For $\triangle FGH$, shown below, which of the following is an expression for y in terms of x ?



- a. $x+4$
- b. $\sqrt{x^2+4}$
- c. $\sqrt{x^2+8}$
- d. $\sqrt{x^2-16}$
- e. $\sqrt{x^2+16}$

Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number	length/distance
		Equation	area
		Ratio	ratio

Skills needed:

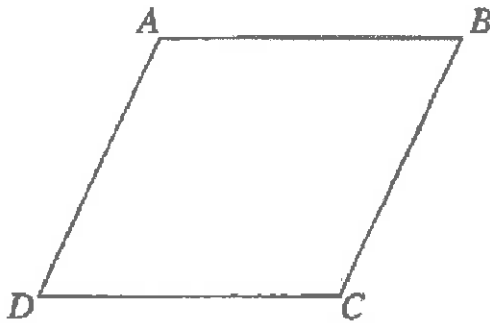
Use pythagorean theorem

Name: _____

Date: ___ Per: ___

Pythagorean Theorem Study Guide

7. In the rhombus below, diagonal AC=6 and diagonal BD=8. What is the length of each of the four sides?



5

Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number	length/distance
		Equation	area
		Ratio	ratio

Skills needed:

Use pythagorean theorem

8. Two girls walk home from school. Starting from school, Susan walks north 2 blocks and then west 8 blocks, while Cindy walks east 3 blocks and then south 1 block. Approximately how many blocks apart are the girls' homes?

Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number	length/distance
		Equation	area
		Ratio	ratio

Skills needed:

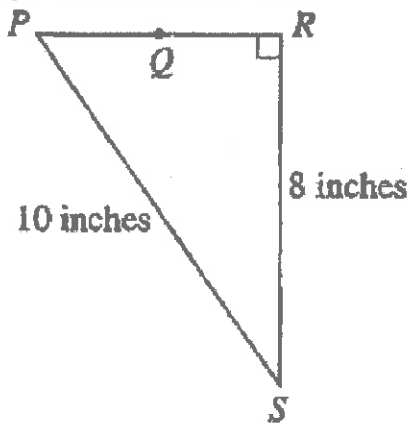
$$\sqrt{30} = 11.4 \text{ blocks}$$

Name: _____

Date: ___ Per: ___

Pythagorean Theorem Study Guide

9. In right triangle PRS shown below, Q is the midpoint of PR. What is the length of QR, to the nearest inch?



3 in

Know	Need to Know	My answer should be:	My answer should represent (circle one):
		Number	length/distance
		Equation	area
		Ratio	ratio

Skills needed:

Use pythagorean theorem

Skills bank:

- Pythagorean Theorem
- Radical Expressions