

Name: _____

Date: _____ Per: _____

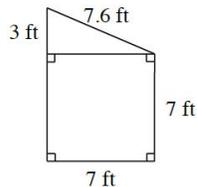
Lesson 4.2.4 Homework

4-60. Is the relationship shown in the table below proportional? If so, use it to complete a Proportions Web. If not, explain why it is not.

Hours Worked	Amount of Dirt Excavated (cubic yards)
3	6.6
4	8.8
8	17.6
9	19.8

4-61. In a recent snail race, the winning snail traveled 5.85 cm in $\frac{3}{4}$ of a minute. How fast was the snail traveling in centimeters per second?

4-62. Find the area and perimeter of the shape below.



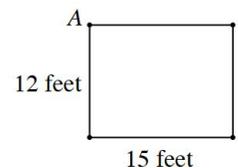
4-63. Circle terms and simplify each of the following expressions.

- $3 + 1 \cdot 4 + (-7)$
- $50 + 3(-10) + 2(-20)$
- $4 + (-50) \cdot 2$
- $(4 + (-170))(5 + (-4))$

4-64. CECIL'S LATEST TRICK

To amaze the audience, Cecil set up four tightropes in a rectangle, each connected at a pole as shown in the diagram at right. A ladder down from the ropes is located at point A.

- If Cecil starts at point A and must travel completely around the rectangle, how far must Cecil travel?
- How can Cecil's distance be represented by an expression?



4-65. State whether or not each equation below represents a proportional relationship. How can you tell?

a. $y = x + 2.3$

b. $y = \frac{6}{13}x$

c. $7 - y = 2x$

4-66. A stack of six bricks is two feet high. Use that information to answer the questions below.

a. How many bricks are in a stack 20 feet high?

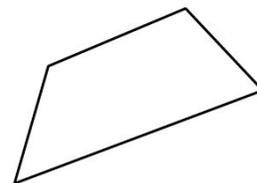
b. How high is a stack of 20 bricks?

4-67. Alexa is looking at the shape at right. She needs to make several different figures that are similar to it.

a. If she uses the scale factor $\frac{8}{5}$, will the new shape that she creates be larger or smaller than the original? Justify your answer.

b. List two different scale factors Alexa could use to make a smaller shape.

c. List two different scale factors Alexa could use to make a larger shape.



4-68. Kirk is helping his grandparents set up their new portable music players. His grandmother, Maude, has 1 jazz album, 2 country western albums, and 5 heavy-metal albums. Kirk's grandfather, Claude, has 3 classical albums, 2 rap albums, and 7 heavy-metal albums. If Kirk's grandparents' portable music players are on random shuffle mode, who has the greater chance of listening to a heavy-metal album? Explain how you know.

4-69. At your first job, you may be amazed to learn that one fourth of your paycheck will go to pay taxes.

Suppose the amounts listed in parts (a) through (c) below are the earnings for three employees. Determine how much of each paycheck will go to pay taxes.

a. \$84

b. \$128

c. \$210