9.2..2 Pythagorean Theorem

Homework

Name _____ Period _____

Work through each of the problems below to practice the concepts from today's lesson and review concepts from previous lessons. Then review AND FIX work your work using the class website: MrsGainesClassWebsite.weebly.com. Be sure to always **show all work!**

9-74. If you have 24 square tiles how many different rectangles can you make? Each rectangle must use all of the tiles and have no holes or gaps. Sketch each rectangle on the graph paper below and label its length and width. Can you make a square with 24 tiles? Why or why not?

4 rectangles (1 by 24, 2 by 12, 3 by 8, or 4 by 6). No

9-75. Lydia has four straws of different lengths, and she is trying to form a right triangle. The lengths are 8, 9, 15, and 17 units. Which three lengths should she use? Justify your answer.

8, 15, and 17

9-76. The Wild West Frontier Park now offers an unlimited day pass. For $29.00, visitors can go on as many rides as they want. The original plan charged visitors $8.75 to enter the park, plus $2.25 for each ride. Write an equation to determine the number of rides that would make the total cost equal for the two plans. Solve the equation.

$29 = 8.75 + 2.25x$. $x = 9$ rides

9-77.

a. Write the rule for the table at right.

x	4	$\frac{1}{2}$	−2		−1	7
y	−11		1	−3	−1	

$y = -2x - 3$

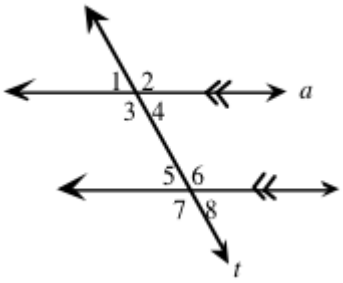
b. What is the slope?

-2

c. What is the y-intercept?

$(0, -3)$

9-78. Solve for x. Each part is a separate problem.



a. If $m\angle 1 = 3x - 18°$ and $m\angle 5 = 2x + 12°$, find x.

$x = 30°$

b. If $m\angle 3 = 4x - 27°$ and $m\angle 6 = x + 39°$, find x.

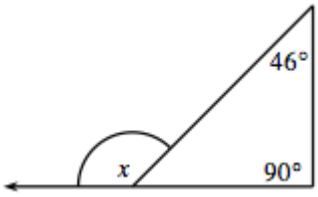
$x = 22°$

c. If $m\angle 4 = 49°$ and $m\angle 6 = 5x + 41°$, find x.

$x = 18°$

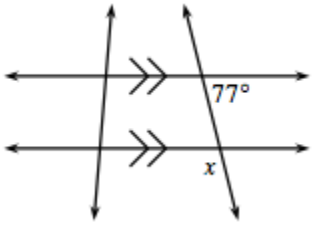
9-79. Calculate the value of x.

a.



$x = 136°$

b.



$x = 103°$