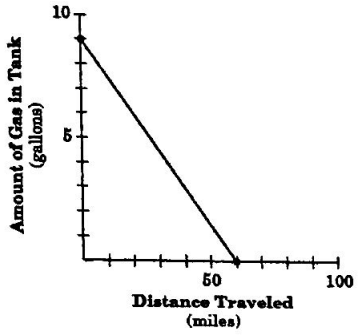
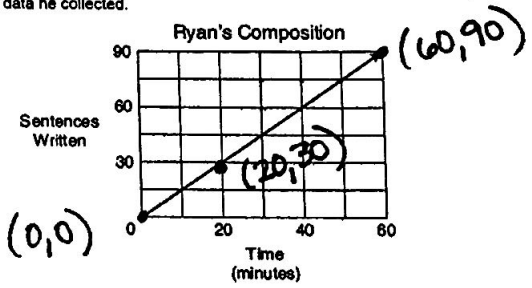
HW 5.31

93. According to the graph, which statement *best* describes the slope?



A. As the distance traveled increases by 20, the amount of gas in the tank decreases by 3.
B. As the distance traveled decreases by 3, the amount of gas in the tank increases by 20.
C. As the distance traveled increases by 30, the amount of gas in the tank increases by 2.
D. As the distance traveled decreases by 20, the amount of gas in the tank decreases by 3.

94. Ryan is writing a composition for homework. He decides to keep track of the number of sentences he writes compared to the time in minutes he works. The graph below shows the data he collected.

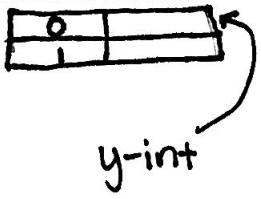


At what rate does Ryan write his composition?

A. 0.5 sentence per minute
B. 1 sentence per minute
C. 1.5 sentences per minute
D. 2 sentences per minute

95. Which of the following equations describes the same function in the table below?

x	y
2	8
3	13
4	18
5	23



A. $y = 5x - 2$
B. $y = \frac{1}{5}x - 2$
C. $y = 5x + 2$
D. $y = \frac{1}{5}x + 2$

96. What is the slope of the equation $2x - 5y = 10$?

$-2x \downarrow \quad -2x$

$-5y =$

A. -2
B. $\frac{2}{5}$
C. 5
D. $-\frac{2}{5}$

Then divide!

97. Brock is six feet tall. He climbs a ladder to paint some trim on his house. For each rung that he climbs, Brock is 1.2 feet higher above the ground. Which equation could you use to calculate the distance, d, from the top of Brock's head to the ground if r represents the number of ladder rungs he has climbed?

A. $d = 1.2r + 6$
B. $d = 1.2r$
C. $d = r + 6$
D. $d = 6r + 1.2$

98. Alyssa is enrolled in a public-speaking class. Each week she is required to give a speech of greater length than the speech she gave the week before. The table below shows the lengths of several of her speeches.

Alyssa's Speeches

Week Number	3	4	5	6
Length of Speech (seconds)	150	180	210	240

If this trend continues, in which week will she give a 12-minute speech?

$12 \times 60 = 720$ seconds

A. 22
B. 12
C. 15
D. 24

99. Dr. Chait is considering joining the Garden Club. If he pays a $25 membership fee, he can buy rosebushes from the club at a reduced price of $10 each. If he does not join the club, he can buy rosebushes from a local nursery for $15 each. The graph below compares the cost of buying rosebushes from the Garden Club and from the local nursery.

How many rosebushes will Dr. Chait have to buy from the Garden Club before he would begin to save money?

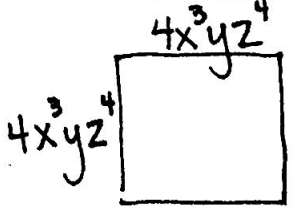
A. 5
B. 7
C. 25
D. 75

$y =$

$y =$

100. The side length of a square is $4x^3yz^4$ units. What is the area of the square?

A. $8x^6y^2z^8$ square units
B. $8x^9yz^{16}$ square units
C. $16x^6y^2z^8$ square units
D. $16x^9yz^{16}$ square units



101. Each month Jessie's phone bill includes a $25 basic fee plus a charge of $.07 per minute for the number of minutes of long-distance calls she makes. Which equation best describes the total amount of Jessie's monthly phone bill, t, in terms of m, the number of minutes of long-distance calls she makes?

A. $t = 0.07 + 25m$
B. $t = 25 + 0.07m$
C. $t = 25(0.07m)$
D. $t = 25(7m)$

102. Shandra is constructing an isosceles triangle to use as a model in her Algebra class. The perimeter of her triangle is 24 inches. Shandra uses the equation $b = 24 - 2s$ to find b, the length of the triangle's third side, in terms of s, the length of each of its two congruent sides. What is her equation written in terms of s?

A. $s = 2(b + 24)$
B. $s = \frac{24 + b}{2}$
C. $s = 2(b - 24)$
D. $s = \frac{24 - b}{2}$