

Name: Answers Date: _____ Period: _____

Lesson 5.2.6 Homework Part 2 Problems 5-88 to 5-92

5-88. Lucas is having yogurt and an apple for a snack. There are five containers of yogurt in the refrigerator: three are raspberry, one is vanilla, and one is peach. There are also two green apples and three red apples.

a) If he reaches into the refrigerator to get a yogurt without looking, what is the probability that Lucas will choose a raspberry yogurt?

$$P(\text{raspberry}) = \frac{3}{5}$$



b) What is the probability that he will choose a red apple if it is the first item he selects?

$$P(\text{red}) = \frac{3}{5}$$

c) What is the probability that Lucas will eat a raspberry yogurt and a red apple?

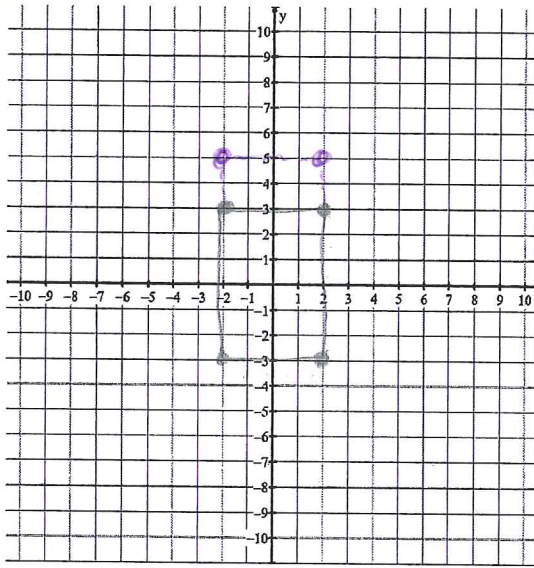
$$P(\text{raspberry and red}) = \frac{3}{5} \cdot \frac{3}{5} = \frac{9}{25}$$

5-89. A bag contains 3 red, 5 yellow, and 7 purple marbles. Find the probability of drawing a purple marble followed by a red marble. The first marble is put back in the bag between draws.

$$P(\text{purple and red}) = \frac{7}{15} \cdot \frac{3}{15} = \frac{21}{225}$$

5-90. Use graph paper to complete parts (a) through (c) below.

a) Draw an xycoordinate graph and label each axis. Plot the following ordered pairs: (2, 3), (-2, 3), (-2, -3), (2, -3). Connect the points in the given order as you plot them. Then connect the fourth point to the first one.



b) Describe the shape on your graph. What is its area? What is its perimeter?

rectangle

$$A = bh$$

$$= 4 \cdot 6$$

$$= 24 \text{ units}^2$$

$$\text{Per} = 4 + 4 + 6 + 6$$

$$= 20 \text{ units}$$

c) Change only two points so that the shape has an area of 32 square units. List your points. Is there more than one answer?

change (-2, 3) to (2, 5)
change (2, 3) to (2, 5)

New area

$$A = bh$$

$$= 4 \cdot 8$$

$$= 32 \text{ units}^2$$

Yes!

5-91. Jerry bought some pears at the store. He paid \$4.59 for 5.4 pounds of pears. What is the unit price of the pears?

$$\frac{\$4.59}{5.4 \text{ pounds}} = \frac{0.854}{1 \text{ pound}}$$

$$\div 5.4 \rightarrow$$

85¢ per pound

5-92. Evaluate the following expressions using the Order of Operations.

a) $7 \cdot 8 - 4(6 - 2) + 18$

$$7 \cdot 8 - 4(4) + 18$$

$$7 \cdot 8 - 16 + 18$$

$$56 - 16 + 18$$

$$40 + 18$$

$$\textcircled{58}$$

b) $6^2 - (8 \cdot 3) + 2^2(7 \cdot 3)$

$$36 - (8 \cdot 3) + 2^2(7 \cdot 3)$$

$$36 - (8 \cdot 3) + 4(7 \cdot 3)$$

$$36 - (24) + 4(21)$$

$$12 + 84$$

$$\textcircled{96}$$

c) $\frac{14}{2} - 3(8 - 6) + 7^2$

$$7 - 3(8 - 6) + 49$$

$$7 - 3(2) + 49$$

$$7 - 6 + 49$$

$$1 + 49$$

$$\textcircled{50}$$

d) $-9 - 3(7 - 2) + \frac{24}{3}$

$$-9 - 3(5) + \frac{24}{3}$$

$$-9 - 15 + 8$$

$$-9 + (-15) + 8$$

$$-24 + 8$$

$$\textcircled{-16}$$

