Name: _____

Time to investigate! Show your work for each question and circle your answer. This is due by Friday, May 20th (10 points)

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1. Probability(Refer to ch 13.1 for help)

There are two red marbles, 4 green marbles and one yellow marble in a bag. Without looking you picked one marble out of the bag. What is the probability of picking the yellow marble?

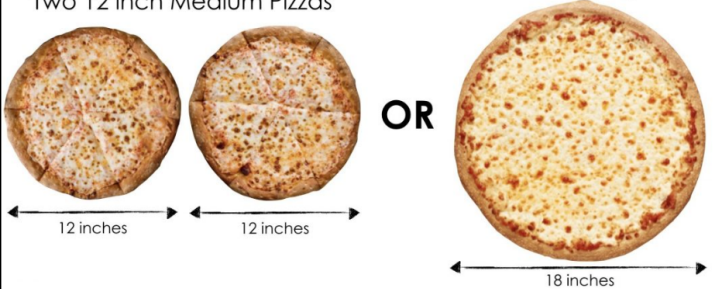**2. The Counting Principle (Refer to Ch 13.3 for help)**

You are at a George Mason basketball game where you went to pick out a meal to eat. See the scenario below and answer the question.

When choosing 1 burger, 1 side serve and 1 drink ... how many combinations are possible?

burgers
- beef
- chicken
- fish
- vegetarian

4 possibilities

side serves
- fries
- salad

2 possibilities

drinks
- juice
- coffee
- cola
- water

4 possibilities

3.
Which group of pizza gives you more, two 12 in. pizzas or one 18 in. pizza?

Two 12 inch Medium Pizzas

12 inches   12 inches

OR

One 18 inch Large Pizza
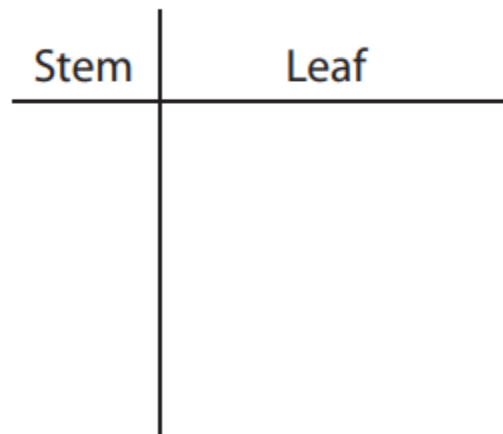
18 inches

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4. Stem and leaf plots. (refer to ch 3.3 for help)

Make a stem and leaf plot for the given data.

74, 88, 97, 72, 79, 86, 95, 79, 83, 91

Stem	Leaf

Key : 8|6 = _____

5. Evaluate the expression when x = 10 and y = 3² $\sqrt{15x} - 6x - y$	**6.** Solve $14x^2 = 2{,}744$
7. Solve - 2x $\geq$ 4. Then graph the solution. -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6	**8.** What is the area of a triangle where the base is 4 feet and the height is 6 feet?
9. Solve the proportion. $\dfrac{25}{40} = \dfrac{a}{20}$	**10.** Find the slope of the line and tell whether it is negative, positive or zero