Homework #18
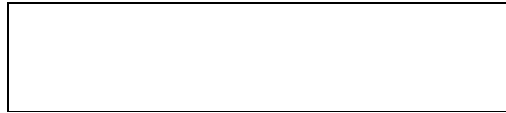
Name_____

1. Follow the steps below to solve this problem:

Taylor has $\frac{3}{4}$ gallon chocolate ice cream. She gives each one of her friends $\frac{1}{8}$ gallon servings. <u>How many friends</u> is she able to serve?

  a. Draw a picture to represent $\frac{3}{4}$:

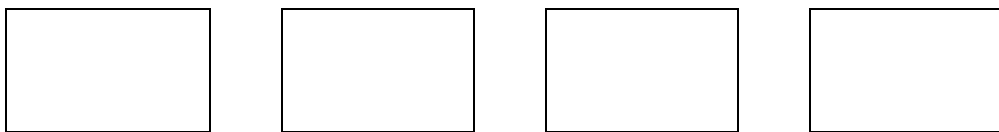 **b.** Cut each fourth in half to make eighths.

  c. Count the number of $\frac{1}{8}$ servings that fit in $\frac{3}{4}$: _____

  d. Now solve $\frac{3}{4} \div \frac{1}{8}$ to see if you get the same answer as above: _____

2. Follow the steps below to solve this problem:

You decide to make oatmeal chocolate chip cookies. Each batch uses $\frac{2}{3}$ cups oatmeal. You want to use the entire canister of oatmeal you have in your pantry, which is 4 cups full. <u>How many batches</u> of cookies can you make with 4 cups of oatmeal?
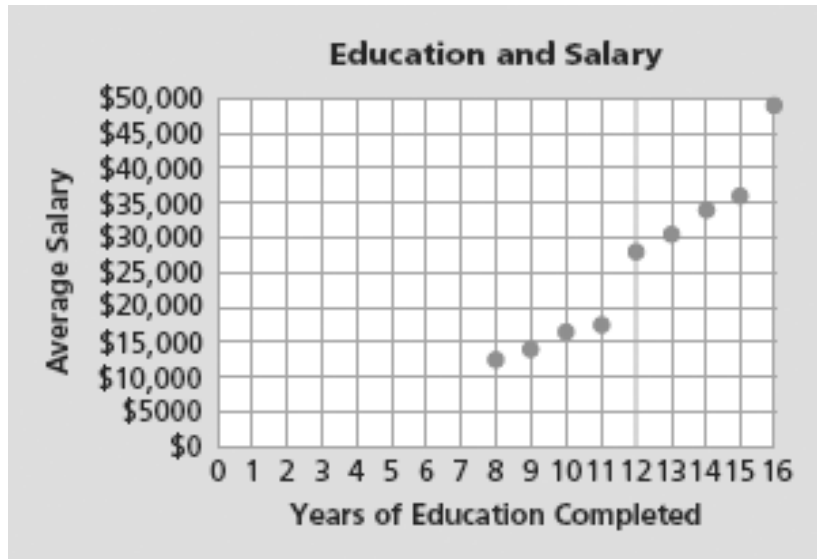
  a. Start with 4 cups:

  b. Cut each cup into thirds.

  c. Circle or shade in $\frac{2}{3}$ as many times as you can.

  d. Count the number of $\frac{2}{3}$ cups that fit in 4 cups: _____

  e. Now solve $4 \div \frac{2}{3}$ to see if you get the same answer as above: _____

3. The graph below shows the results of a survey of people over age 25 who had completed different levels of education. The graph shows the average salary for people with each level of education.

Education and Salary

a. Make a table that shows the information in the graph.

Years of Education	Average Salary
8	
9	
10	
11	
12	
13	
14	
15	
16	

b. **After how many years** of education do salaries take a **big jump**? Why do you think this happens?

c. Do you find it easier to answer **part b** by looking at the graph or at the table? Explain.

4. Desi is planning a go-kart party. **Kartland** gives him a table of group rates. **Thunder Alley** gives him a graph. The table and graph are shown below.

Kartland Price Packages

Number of Laps Raced	10	20	30	40	50	60
Cost	$25	$45	$65	$85	$105	$125

a. Find the **cost** at both locations for **50** laps.
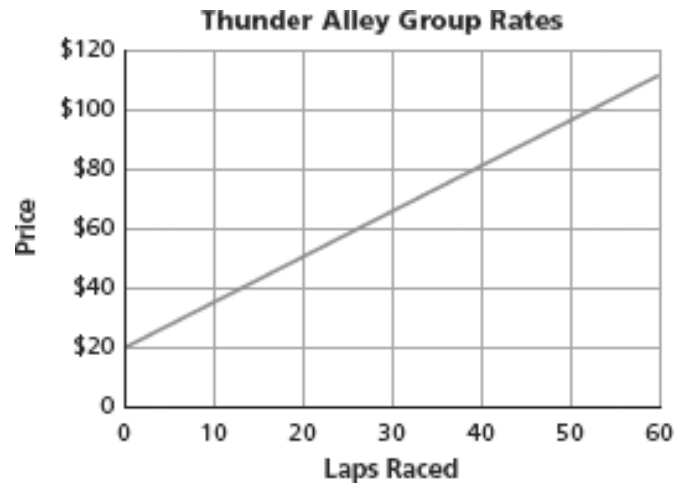
_____ _____
  Kartland   Thunder Alley

b. Find the **cost** at both locations for **20** laps.

_____ _____
  Kartland   Thunder Alley

c. *Estimate* the **cost** at both locations for **35** laps.

_____ _____
  Kartland   Thunder Alley

Thunder Alley Group Rates

(graph: Price vs Laps Raced, line rising from $20 at 0 laps)

d. For both places, the relationship between number of laps and price seems to increase at a <u>constant</u> <u>rate</u> *(go up by the same amount each time)*.

How is this pattern shown in the **table**?

How is this pattern shown in the **graph**?

e. Which location seems to offer the **better deal**? _____
Explain:

5. A convenience store is keeping track of its popcorn sales all day.

Popcorn Sales

Time	Total Bags Sold
6:00 A.M.	0
7:00 A.M.	3
8:00 A.M.	15
9:00 A.M.	20
10:00 A.M.	26
11:00 A.M.	30
noon	45
1:00 P.M.	58
2:00 P.M.	58
3:00 P.M.	62
4:00 P.M.	74
5:00 P.M.	83
6:00 P.M.	88
7:00 P.M.	92

a. This chart shows the total number of bags sold for the day after each hour. *For example, **between 7:00am and 8:00am, 12 bags** of popcorn were sold.*

How many bags were sold between 9:00am and 10:00am?

6 bags

b. What is the **total** number of bags of popcorn sold on this day?

_____

c. How many bags were sold between 3:00 and 4:00?

_____

d. Between what two hours did they sell exactly 9 bags?

_____

e. Between what two hours did they sell exactly 0 bags?

_____