



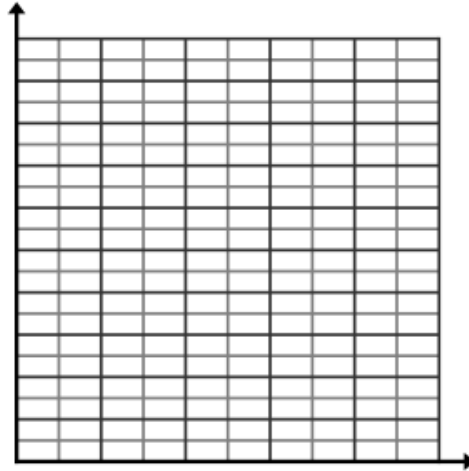
1. A custodian earns \$8.25 per hour cleaning the school. Fill in the table.  
Is the total pay proportional to the number of hours worked?

Time worked (hours)	1	2	3	4
Total pay (\$)				

2. The following table shows the relationship between the amount of strawberries (in pounds) and cost. Is this a proportional relationship? \_\_\_\_\_ Explain:

Cost (\$)	1.50	3.00	4.50	6.00	7.50
Amount (lbs)	1	2	3	4	5

Put the information from the table on the graph at the right, with pounds on the x-axis and the cost on the y-axis. Label the axes on the graph.



3. A health club charges \$35 a month for membership fees. Determine whether the cost of membership is proportional to the number of months. Explain your reasoning.

4. To convert a temperature in degrees Celsius to degrees Fahrenheit, multiply the Celsius temperature by  $\frac{9}{5}$  and then add 32. Fill in the table.

Is a temperature in degrees Celsius proportional to its equivalent temperature in degrees Fahrenheit?

Explain:

Degrees Celsius	0	10	20	30
Degrees Fahrenheit				

5. An airplane is flying at an altitude of 4,000 feet and descends at a rate of 200 feet per minute. Determine whether the altitude is proportional to the number of minutes. Explain your reasoning.

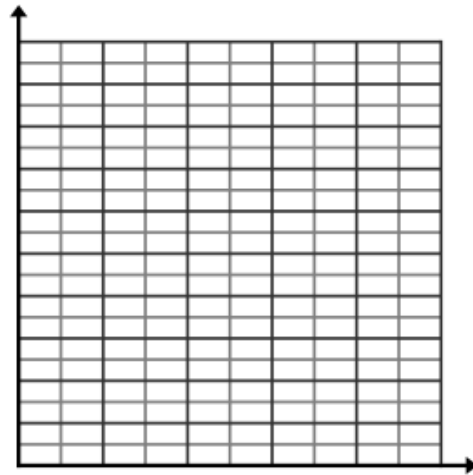
6. Which situation represents a proportional relationship between the number of laps run by each student and their time? \_\_\_\_\_

Rebekah's Time (s)	146	292	584
Laps	2	4	8

Joel's Time (s)	150	320	580
Laps	2	4	6

7. Frank and Allie purchased cell phone plans through different providers. Their costs for several minutes are shown in the table. Graph each plan on the same coordinate plane to determine whose plan is proportional to the number of minutes the phone is used. Explain your reasoning.

Time (min)	Frank's Cost (\$)	Allie's Cost (\$)
0	0	4.00
3	1.50	4.50
6	3.00	5.00



Whose plan is proportional?

8a. Is the length of the side of a square proportional to the perimeter?

b. Is the length of the side of a square proportional to the area?

(Make a table or graph to help you decide)

9. The table shows the fees for buying tickets at a carnival. Is the fee proportional to the number of tickets purchased? \_\_\_\_\_ Explain your reasoning:

Tickets	5	10	15	20
Fee (\$)	5	9.50	13.50	16

Can you determine the fee for 30 ride tickets? \_\_\_\_\_  
Explain:

10. You want to sell lemonade by the park. Different brands of lemonade have different formulas. You want to sell lemonade that tastes the most "lemony."

Mix A 2 cups concentrate 3 cups water	Mix B 1 cup concentrate 4 cups water	Mix C 4 cups concentrate 6 cups water	Mix D 3 cups concentrate 5 cups water
Mix E ½ cup concentrate 2 cups water	Mix F 4 cups concentrate 8 cups water	Mix G 2/3 cup concentrate 1 cup water	Mix H ½ cup concentrate 1 cup water

a. Which mix(es) will make the strongest lemonade (most lemon flavor)?

b. Which mix(es) will make the weakest lemonade (least lemon flavor)?

c. Are any of the mixes proportional to others in the set? Justify your answer:

d. Order the mixes from strongest to weakest.