The Rule of Four Name

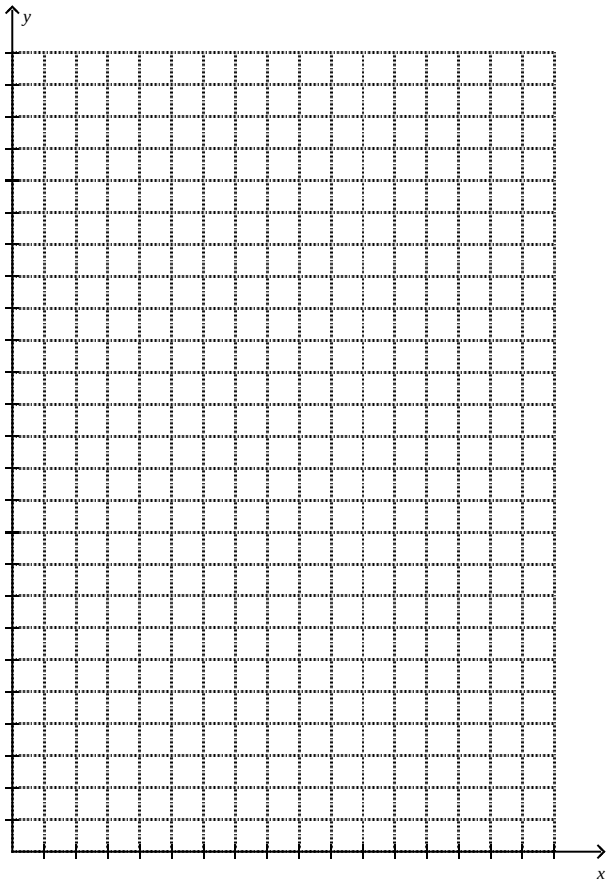
Narrative:

You have $12 in your piggy bank and every day you get a $3 allowance for helping out at home. You are saving all of your money.

Table:

Days	Money	math you are doing
0		
1		
2		
3		
4		
8		
20		
100		

Graph:



Algebra/Equations:

What math are you doing over and over again to find the total money regardless of the number of days?

Write a rule that gives the total money in the piggy bank after x number of days.

Is this situation a linear relationship? Why or why not?

Narrative:

The frequency of the swing of a pendulum depends on the length of the pendulum. Letting F = swings/sec and L = length of the pendulum we have F = f(L).

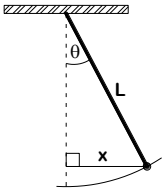
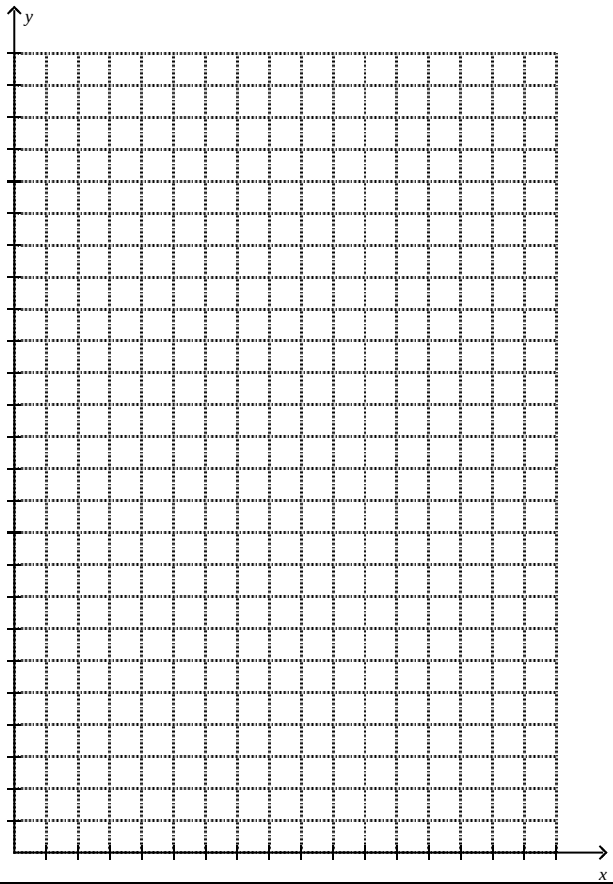


Table:

Length	Time for 5 swings	Swings/sec
0		
10 cm		
20 cm		
30 cm		
40 cm		
50 cm		
60 cm		
100 cm		
200 cm		

Graph:

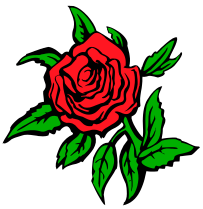


Algebra/Equations:

Is this a linear relationship? Why/why not?

Assuming a power function of the form $y = A(x^b)$ use regression to find the best fit equation.

Ginger buys and sells/delivers roses. She buys roses for $5/doz and sells them (delivered) for $15/doz. She bought a bike ($450) for delivering the roses and a City license for $225.



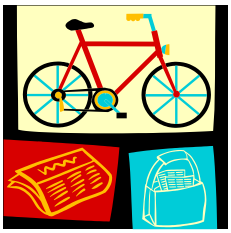
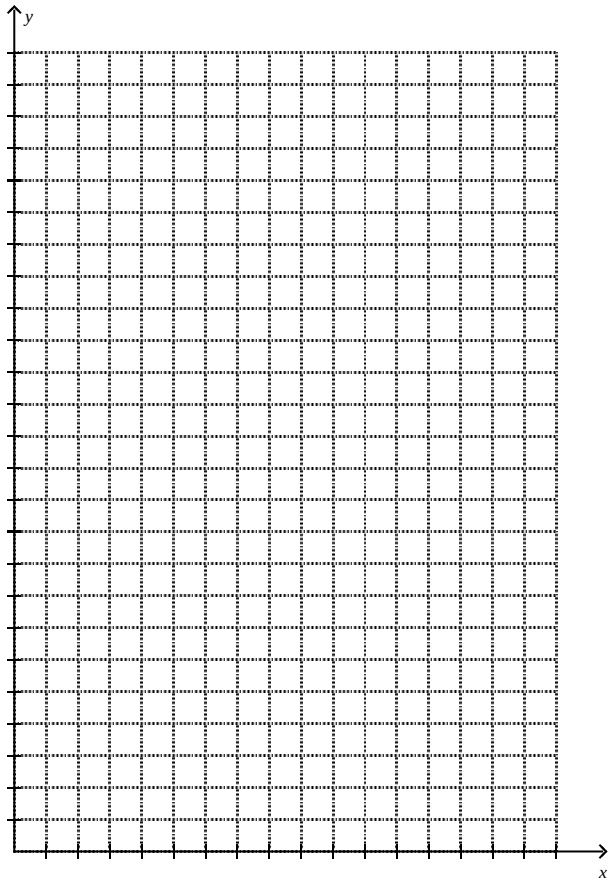


Table:

Roses	Total expenses	Total Revenues
0		
12		
24		
36		
48		
60		
100		
200		
1200		

Graph:



Algebra/Equations:

What math are you doing over and over again to find the total of Expenses only regardless of the number of roses sold?

Write a rule that gives the total Expenses for any number of roses bought.

What math are you doing over and over again to find the total Revenues only regardless of the number of roses bought?

Write a rule that gives the total Revenues for any number of roses sold.

Write a rule that gives the total Profit for any number of roses bought and also sold.

Now, build one of your own

Narrative:	Table:
Graph:	Algebra/Equations: