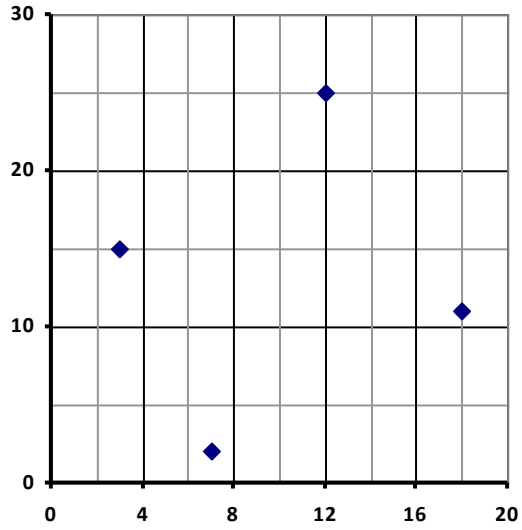
Scatter Plots & Scale

For each of the following graphs, indicate what ONE SQUARE is worth on each axis.

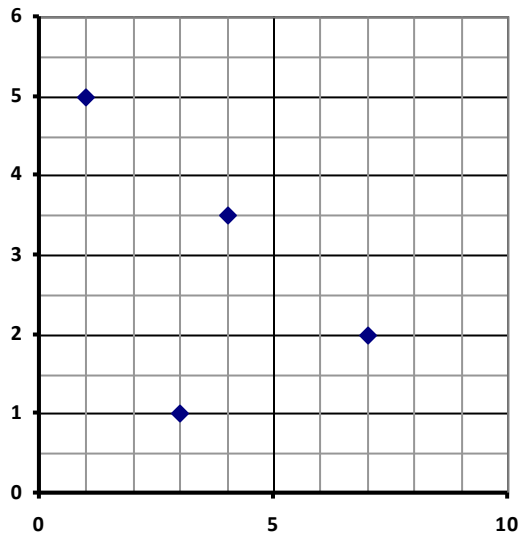
a)



X-Axis: _____

Y-Axis: _____

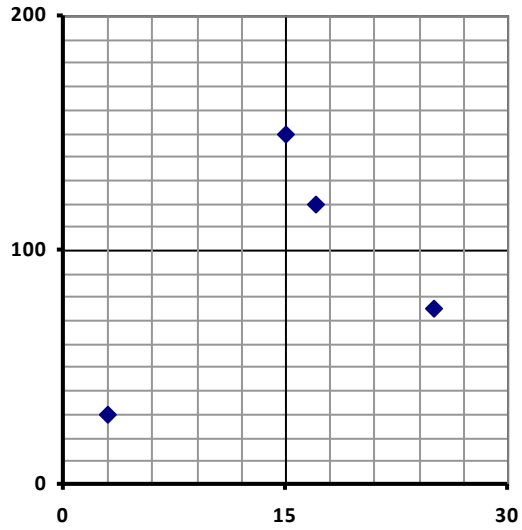
b)



X-Axis: _____

Y-Axis: _____

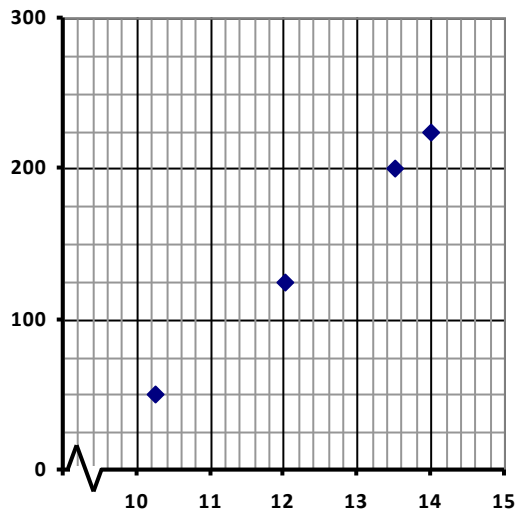
c)



X-Axis: _____

Y-Axis: _____

d)



X-Axis: _____

Y-Axis: _____

Creating Your Own Scale

- Count the number of _____
- Divide the _____ by the _____
- Round up to a nice number to graph with

2 As part of a science experiment, a student records the height of a plant (in cm) over 10 days.

Day	1	2	3	4	6	7	8	9	10
Height	1.2	1.7	2.1	2.7	3.6	4.1	4.6	5.0	5.6

a) Determine the independent variable.

b) Determine the dependent variable.

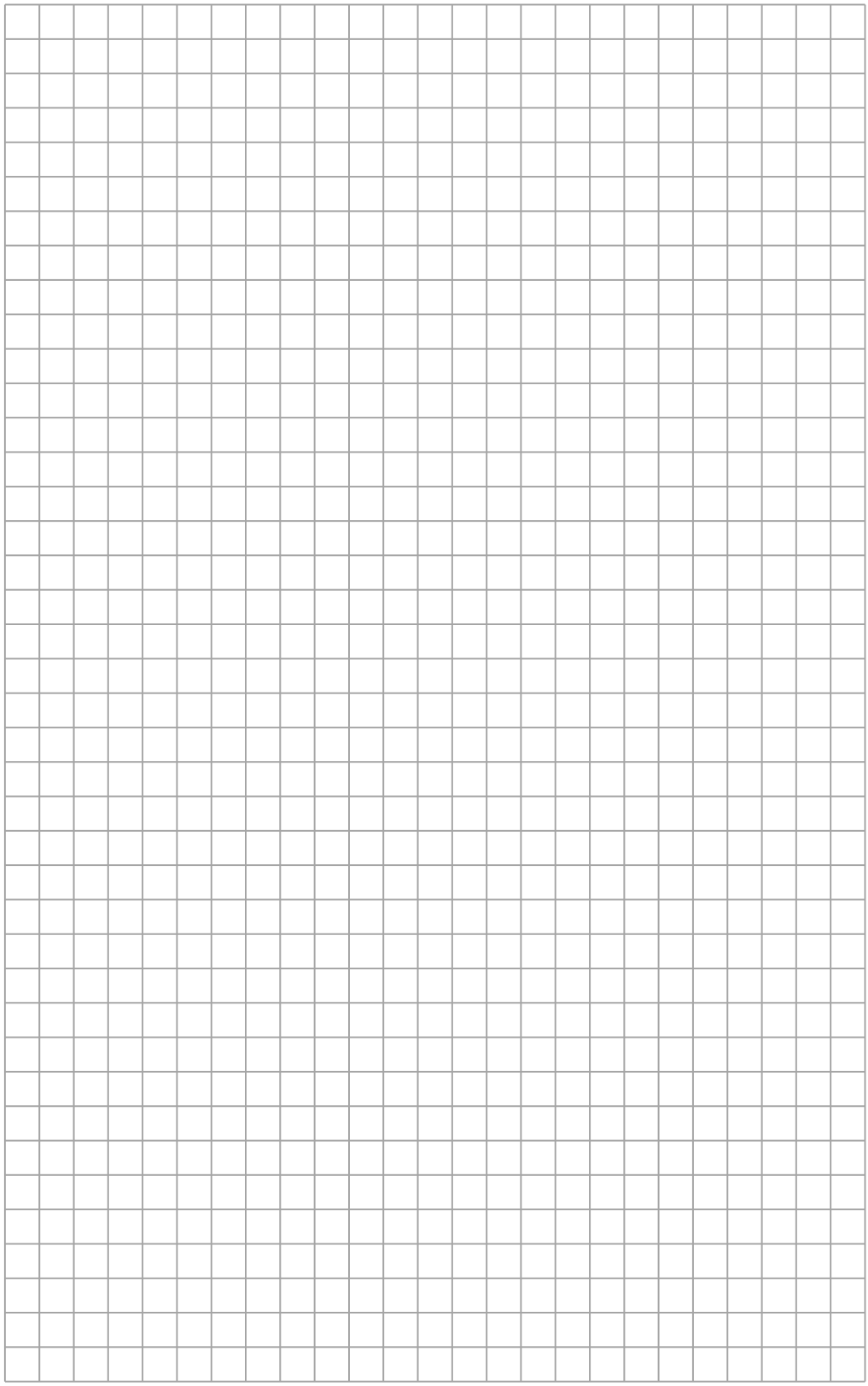
c) Determine an appropriate scale for the x-axis.

d) Determine an appropriate scale for the y-axis.

e) Create a scatter plot of the data. Include appropriate axis labels, title, and scale.

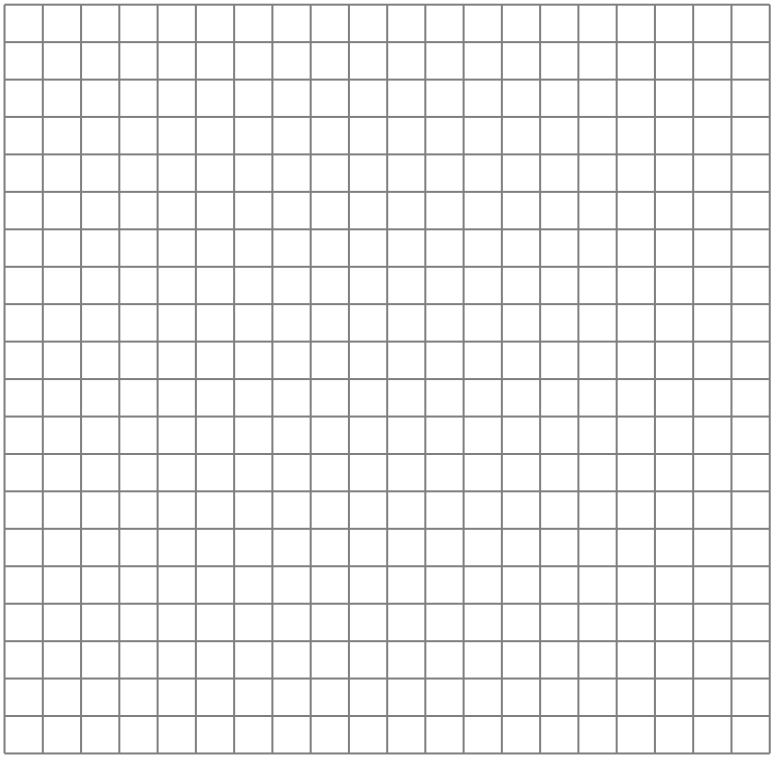
f) Determine the trend shown by the graph.

g) The student forgot to measure the plant on day 5. Predict the height of the plant on day 5. Explain how you found your answer.



3 The following table of values compares the number of tickets sold for a play and the profit earned.

# of Tickets Sold	Profits
0	50
10	70
20	90
30	110
40	130
50	150
60	170
70	190



a) Determine the independent variable.

b) Determine the dependent variable.

c) Determine a scale for the x-axis

d) Determine a scale for the y-axis

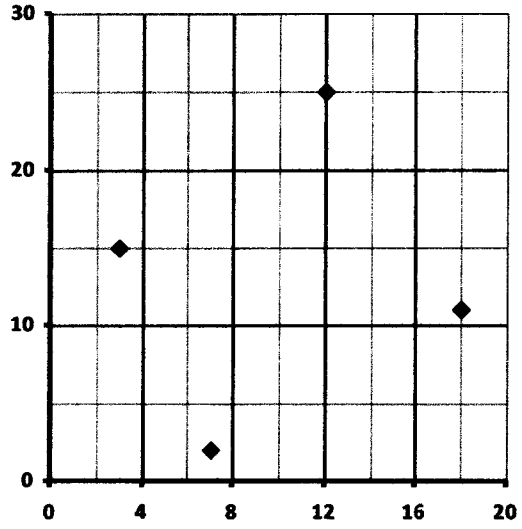
e) Create a scatter plot for the data. Include labels and a title on your graph.

f) What trend is shown by the graph?

Scatter Plots & Scale

For each of the following graphs, indicate what ONE SQUARE is worth on each axis.

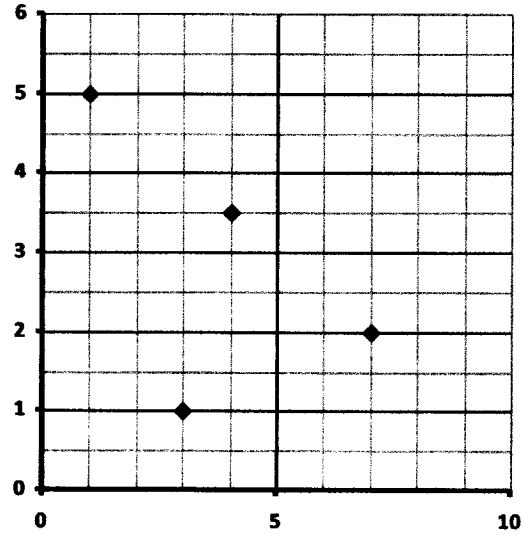
a)



X-Axis: 4÷2 = 2

Y-Axis: 10÷2 = 5

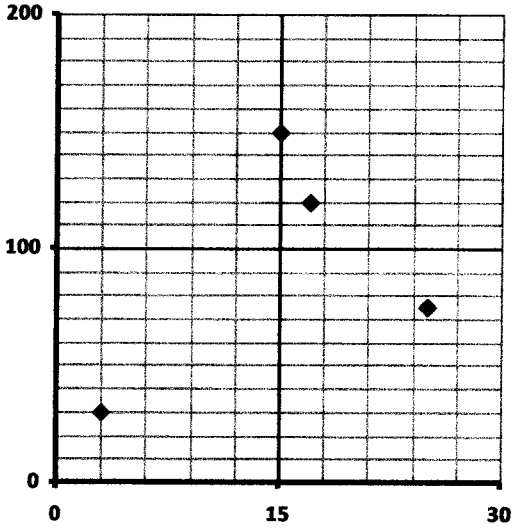
b)



X-Axis: 5÷5 = 1

Y-Axis: 1÷2 = 0.5

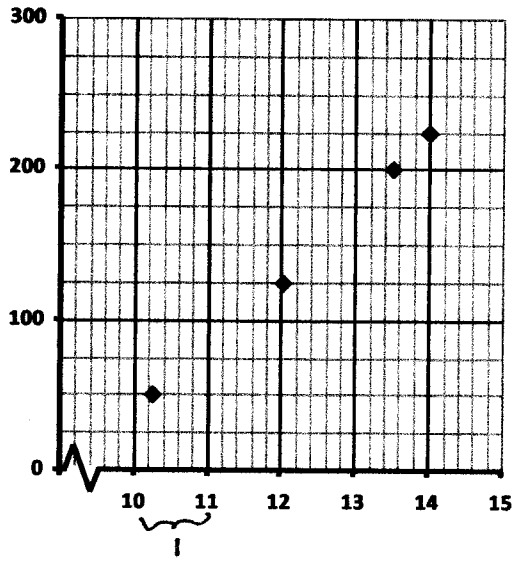
c)



X-Axis: 15÷5 = 3

Y-Axis: 100÷10 = 10

d)



X-Axis: 1÷5 = 0.2

Y-Axis: 100÷4 = 25

Creating Your Own Scale

- Count the number of squares
- Divide the largest value by the # of squares
- Round up to a nice number to graph with (1, 2, 5)

1 As part of a science experiment, a student records the height of a plant during a 10 day time period.

Day	1	2	3	4	6	7	8	9	10
Height	1.2	1.7	2.1	2.7	3.6	4.1	4.6	5.0	5.6

a) Determine the independent variable.

Day

b) Determine the dependent variable.

Height

c) Determine an appropriate scale for the x-axis.

25 squares

$10 \div 25 = 0.4$

0.5 days

d) Determine an appropriate scale for the y-axis.

40 squares

$5.6 \div 40 = 0.14$

0.2 cm (?) ~~days~~

e) Create a scatter plot of the data. Include appropriate axis labels, title, and scale.

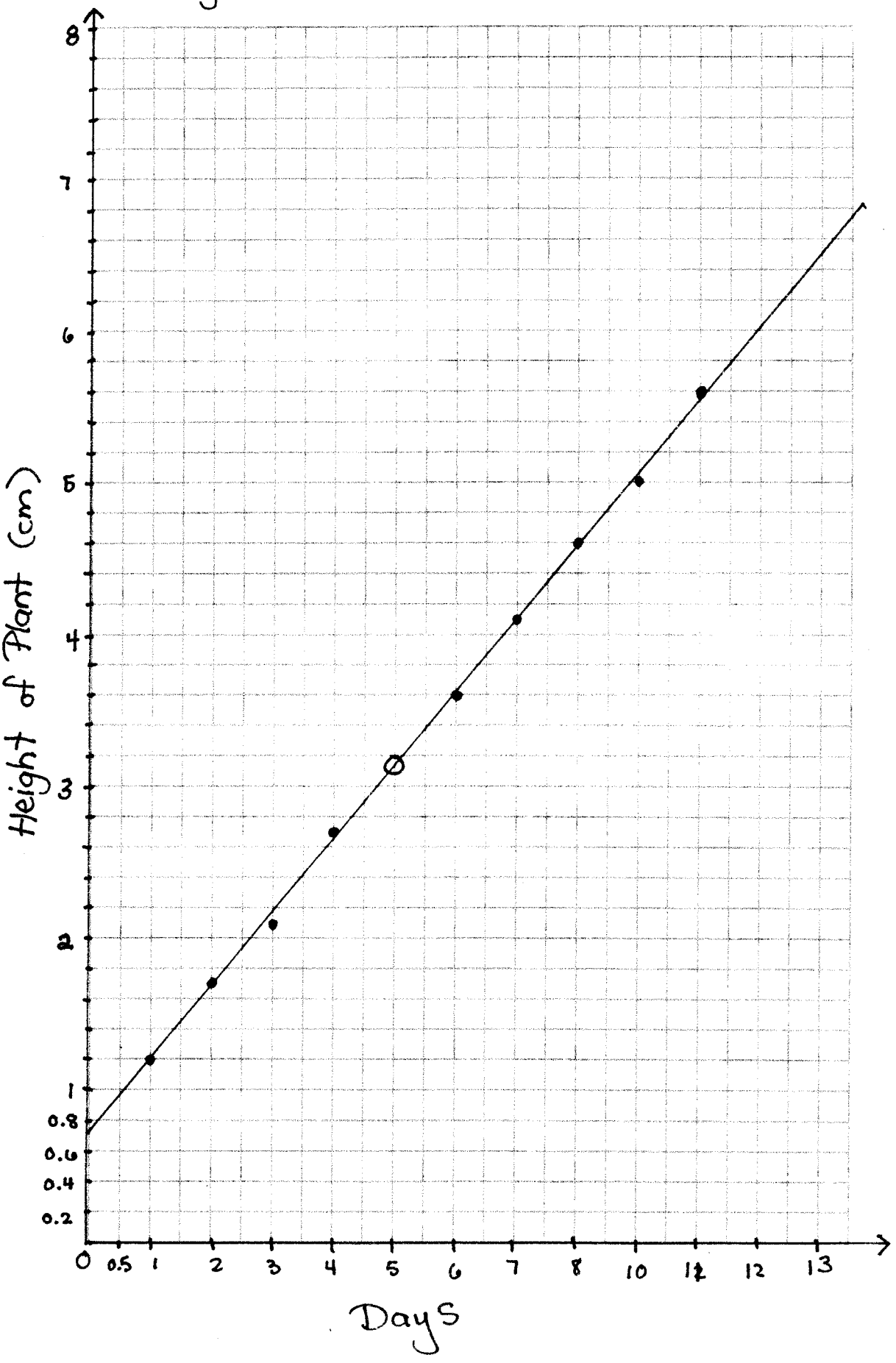
f) Determine the trend shown by the graph.

Over time, the height of the plant increases

g) The student forgot to measure the plant on day 5. Predict the height of the plant on day 5. Explain how you found your answer.

The plant should be approximately 3.15 cm tall on day 5. I used a line of best fit to find my answer.

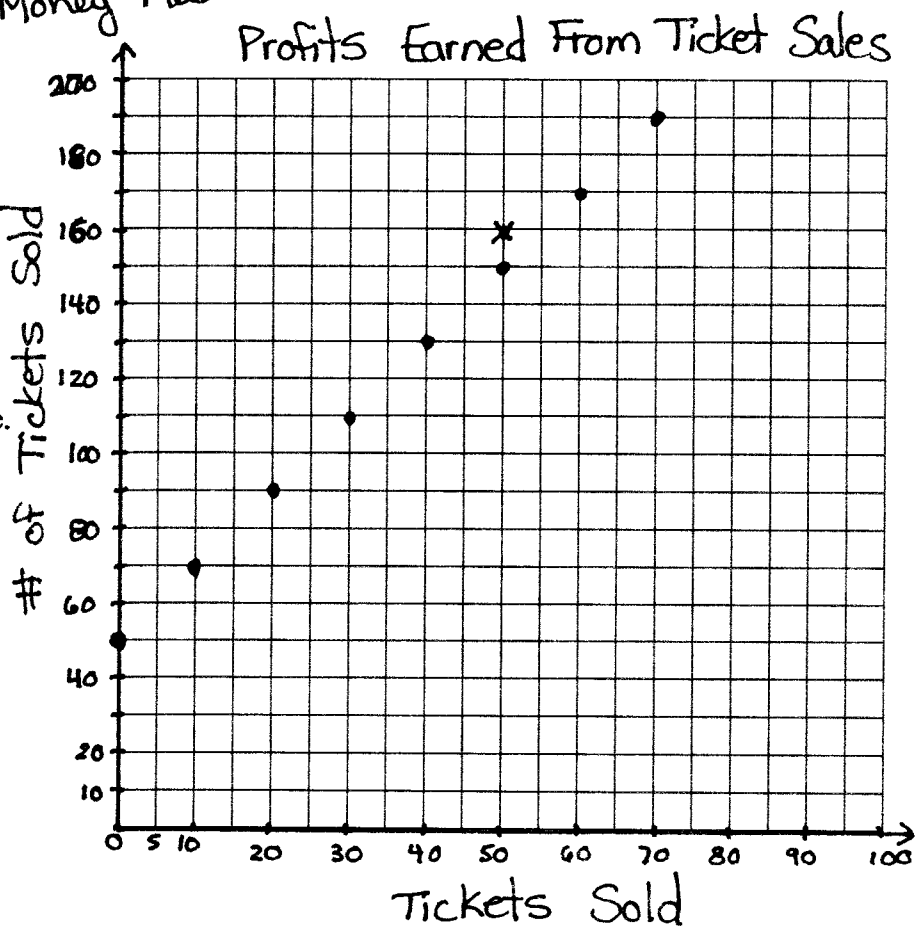
* Answers will vary *


Height of a Plant Over Time
Height of Plant (cm)
8
7
6
5
4
3
2
1
0.8
0.6
0.4
0.2
0
0.5
1
2
3
4
5
6
7
8
10
12
13
Days

3 The following table of values compares the number of tickets sold for a play and the profit earned.

# of Tickets Sold	Profits
0	50
10	70
20	90
30	110
40	130
50	150
60	170
70	190

Money Made



a) Determine the independent variable.

Tickets Sold

b) Determine the dependent variable.

Profits

c) Determine a scale for the x-axis

20 squares

$70 \div 20 = 3.5$ 5 tickets

d) Determine a scale for the y-axis

20 squares

$190 \div 20 = 9.5$ $10

e) Create a scatter plot for the data. Include labels and a title on your graph.

f) What trend is shown by the graph?

The more tickets you sell, the more profit you earn.