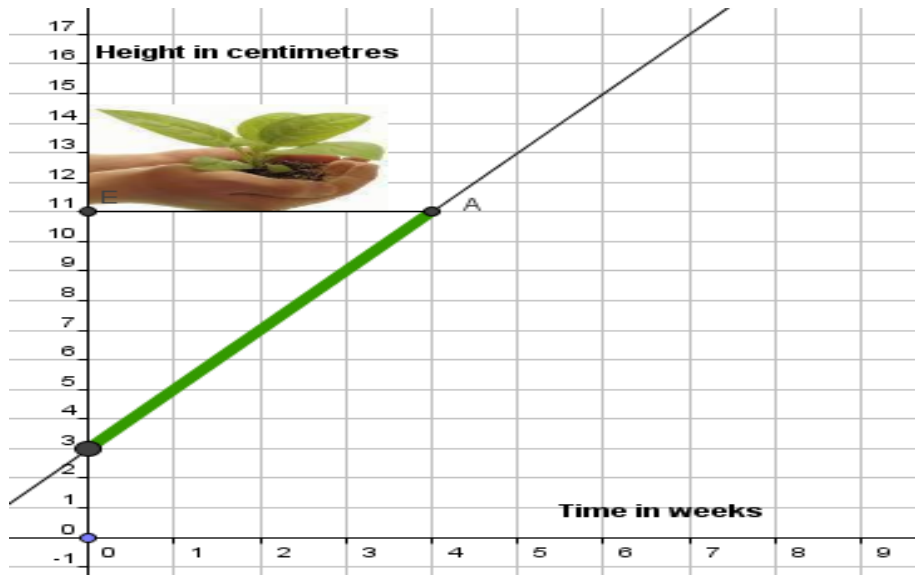


Student Activity: To investigate a graph that represents the growth pattern of a plant, given the starting height and the growth per week

Use in connection with the interactive file, 'Growth of a Plant Graph', on the Student's CD.



1.

The diagram above shows the height of a plant, recorded over 4 weeks.

a. What height was this plant when it was bought?

b. Using the diagram above complete the following table:

Time in weeks	0	1	2	3	4
Height in centimetres					

c. Do you notice a pattern in the data?

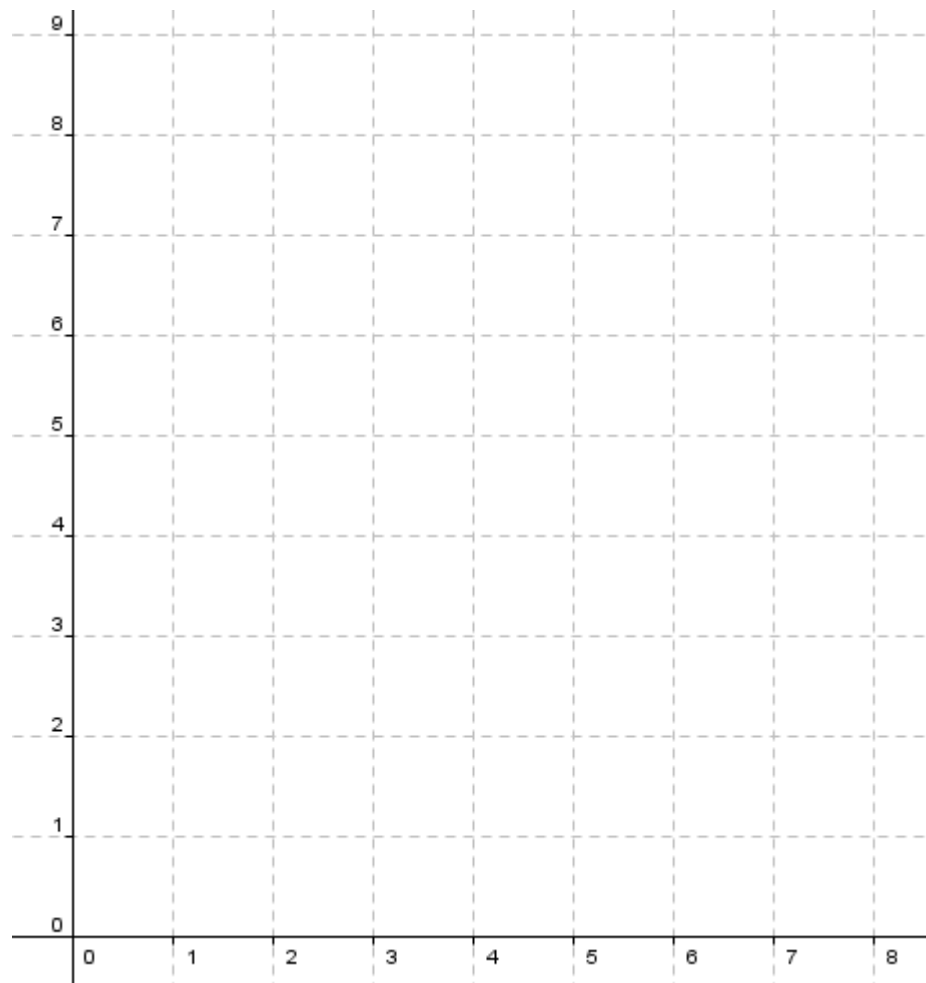
d. Assuming the plant continues the same pattern of growth, what would be the height of this plant after 10 weeks?

e. Find the co-ordinates of any 2 points on the line representing the growth pattern of the plant in the diagram above. Using these points find the slope of the line that represents the growth pattern.

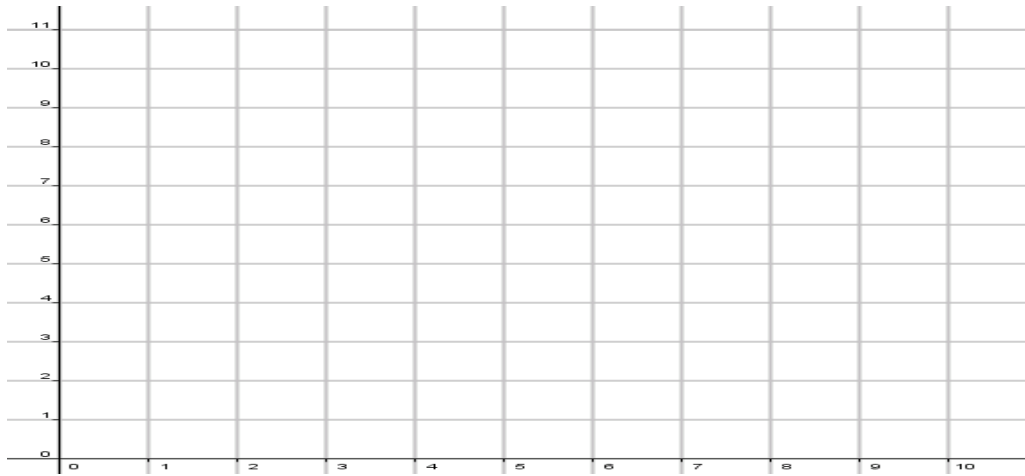
f. What do you notice about the slope and the rate of growth of the plant?

g. Describe in 2-3 sentences the growth pattern of the plant using some or all of the answers from the above questions.

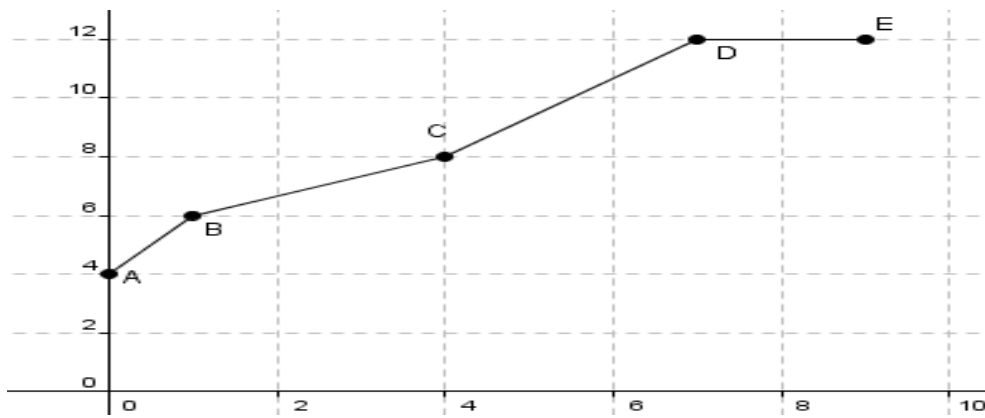
h. If the plant had been 1cm when it was bought and had the same rate of growth as above draw the line which would represent this situation on the graph below.



2. Draw a graph to represent a plant that was 4 cm when it was bought and grows 1 cm per week after that.



3.



- Does the plant whose growth is represented by the above diagram have a regular pattern of growth? (Assume time in days is represented on the x axis and height in centimetres on the y axis.) _____
- Calculate the rate of growth between each of the consecutive points.

4. In order for the growth pattern of a plant to be represented by a complete straight line, what type of growth pattern must the plant have throughout its life?

5. What determines the shape of the graph that represents the growth pattern of a plant?

