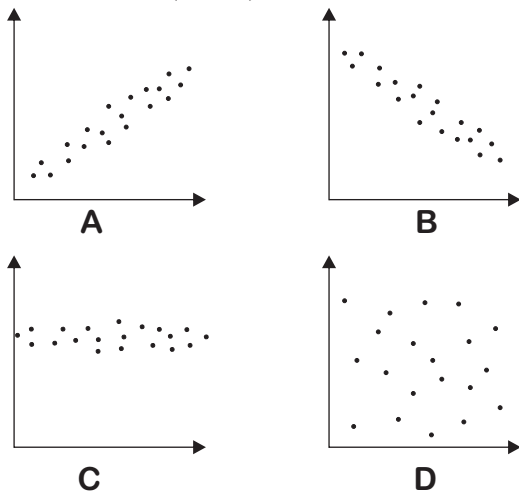*Name*: _____

**1.** Select one of these four graphs to best illustrate the shape of the graph you would expect as a result of graphing the information shown below (a to k).

**A**       **B**

**C**       **D**

(a) Amount of money spent on advertising a product versus the sales of the product. ☐

(b) Time spent watching TV versus time spent on doing homework. ☐

(c) Police numbers in the state versus amount of crime. ☐

(d) Amount of fertilizer used by a gardener versus number of flowers produced. ☐

(e) The age of people versus the number of people wearing spectacles. ☐

(f) The number of feral cats versus the number of native animals in that area. ☐

(g) The age of people versus the number of pets they own. ☐

(h) The daily temperature versus the number of students attending school. ☐

(i) The number of people wearing seat belts versus the number of road fatalities. ☐

(j) The amount of money spent on drug education versus the number of drug overdoses. ☐

(k) The amount of exercise done per week versus a person's standing pulse rate. ☐

**2.** Jarryd found that the length of the grass in his yard affected the time it took him to mow it. He measured the length of the grass and time it took him to mow it on several occasions and recorded the results. These are shown in the table below.

| Length of grass (cm) | 3 | 10 | 8 | 5 | 1 |
|---|---|---|---|---|---|
| Time taken to mow (minutes) | 40 | 64 | 57 | 47 | 33 |

(a) Complete the graph below displaying this information

*Time taken to mow (sec)*

10

1

*Length of grass (cm)*
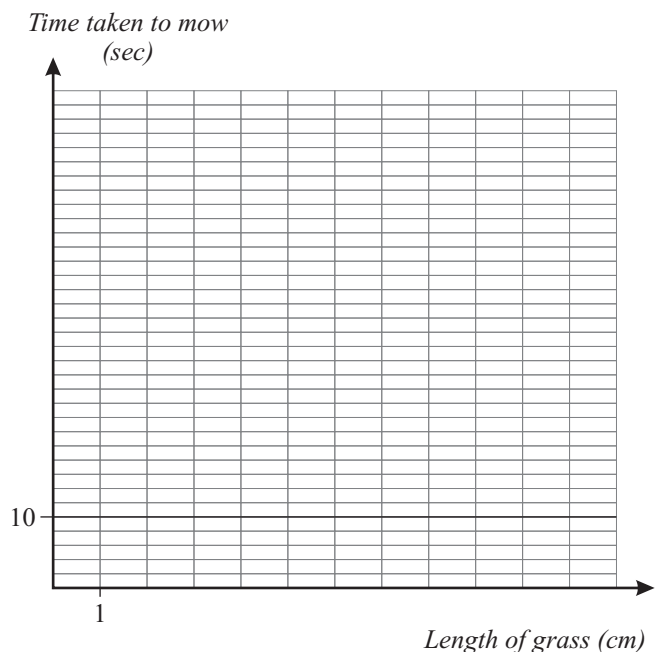
(b) Using this graph, approximately how long would it take Jarryd to mow grass with the following lengths?
Give answers to the nearest minute.
(i) 2 cm       (ii) 7 cm       (iii) 12 cm

☐       ☐       ☐

(c) Describe how the grass length affects the time to mow it.

_____

_____

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