## Mid-Chapter Review

1. Circle linear relations. Cross out non-linear relations. Explain how you know.
a)

e.g., The points lie on a straight line.
c)

e.9., $y$ changes by different amounts.
b) $y=x^{2}-5$
e.g., The degree is not 1 . It is 2 .
d) $y=6 x+3$
e.g., The degree is 1.
2. Use the graph in Question 1 Part a).
a) Is this data continuous or discrete? $\qquad$
b) The independent variable is age .
The dependent variable is maximum heart rate.
c) Estimate the maximum heart rate for a 50 -year-old. 170
d) What is the slope of the line? - 1
e) What does the slope mean in this problem?
e.9., It is the rate of change of the relation, or the change in maximum heart rate for each year. The slope is negative. As age increases, maximum heart rate decreases.
3. b) e.g.,

4. a) Complete the table of values for $y=-3 x+2$
b) Graph the relation on grid paper. Include the equation as a label.
c) What is the slope of the line?

$$
\text { e.g., } \frac{-4-(-1)}{2-1}=\frac{-3}{1} \text {, or }-3
$$

| $x$ | $y$ |
| ---: | ---: |
| -2 | 8 |
| -1 | 5 |
| 0 | 2 |
| 1 | -1 |
| 2 | -4 |

