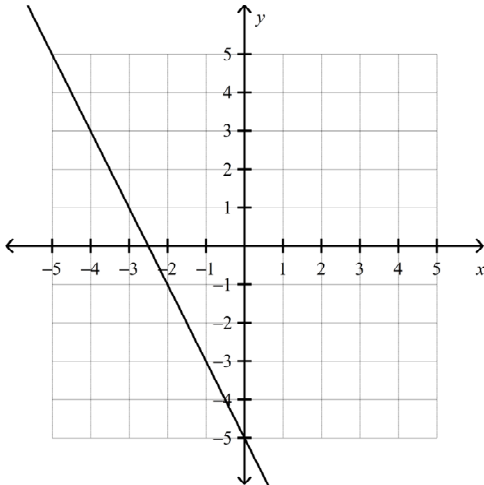


**FOMP 10 Chapter 6 Review Pack v1****Short Answer****Level 1-2 Questions**

1. Points A(5, 1) and B(10, 21) are on a line. What is the rise from point A to point B?
2. Points A(5, -3) and B(7, 1) are on a line. What is the run from point A to point B?
3. Points A(1, -5) and B(3, 3) are on a line. What is the slope from point A to point B?
4. The graph represents the function  $f(x)$ . What is the value of  $f(-2)$ ?

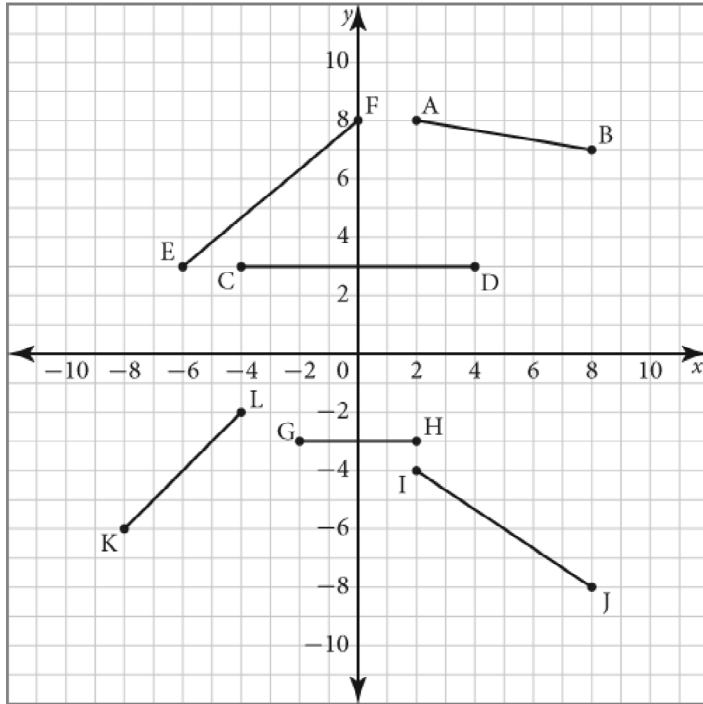


5. The table represents a linear function. What is the missing value?

x	y
3	-11
4	-14
5	?
6	-20
7	-23
8	-26

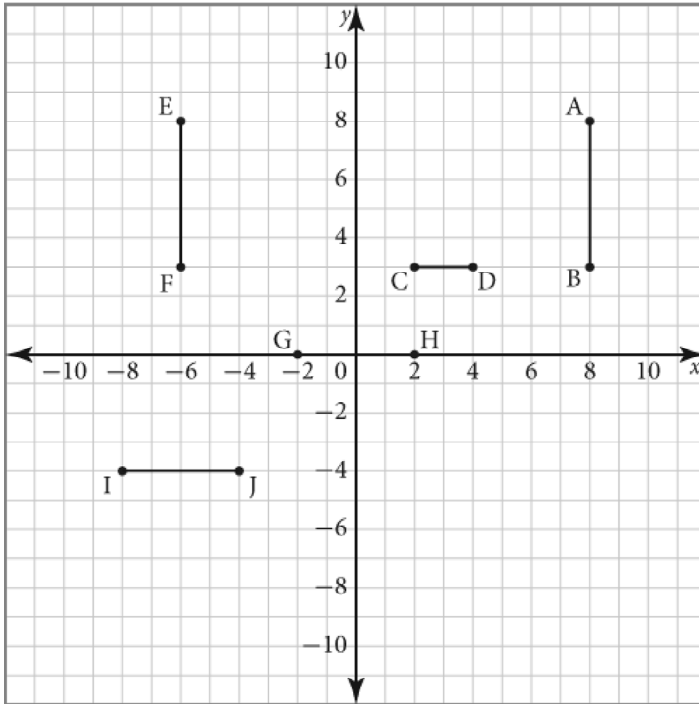
6. Points C(7, 8) and D(4, -4) are on a line. What is the rise from point D to point C?

7. Points C(10, 11) and D(5, -4) are on a line. What is the run from point D to point C?
8. Points E(2, 4) and F(4, 12) are on a line. What is the slope from point E to point F?
9. Which of the following line segments have a negative slope?



10. A graph whose points are not connected represents \_\_\_\_\_ data.
11. A graph of \_\_\_\_\_ data has no space between points.
12. Sam earns \$9 for each hour he babysits his neighbour's children.
- Create a table to display Sam's total earnings for up to 5 h of babysitting.
  - Determine the rate of change in Sam's total earnings.
  - Graph Sam's earnings.
  - How long would it take Sam to earn \$72?
  - Is this situation represented by a linear or non-linear relation? Explain.
  - Is this relation a function? Explain.
  - What are the domain and range of this relation?

13. Which line segment(s) in the graph has (have) a slope of zero?



14. The \_\_\_\_\_ variable is the one that is selected.
15. The \_\_\_\_\_ variable depends on another variable.

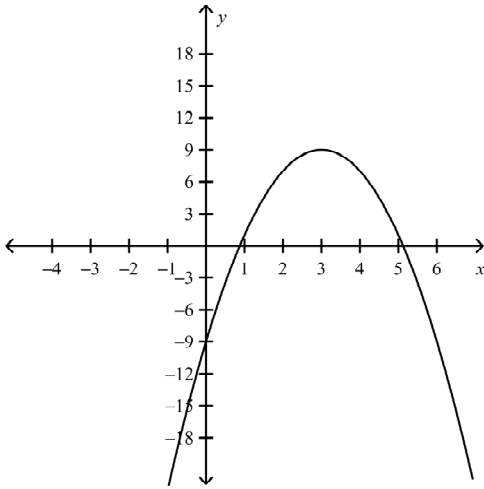
**Level 3-4 Questions**

16. Use the table of values to determine the slope of the relation.

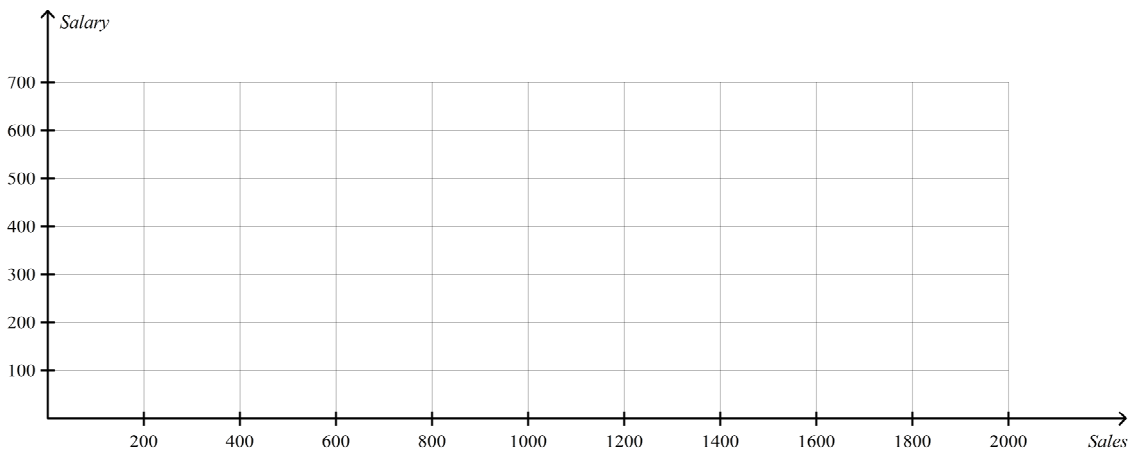
x	y
-16	-28
-8	-29
0	-30
8	-31
16	-32
24	-33

17. Points E(3, 1) and F(23, 6) are on a line. What is the slope from point E to point F?

18. State the range of this function using set notation.



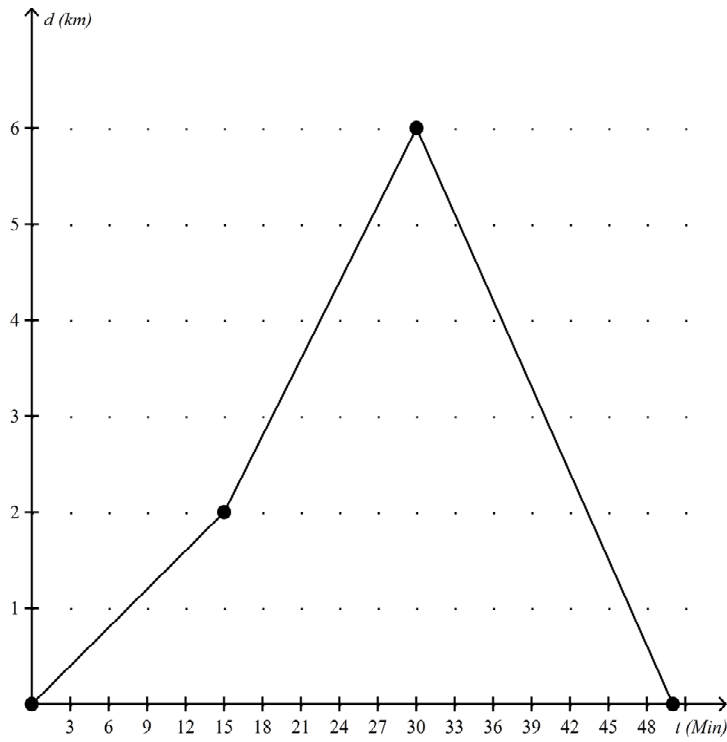
19. Mario sells electronics at Big Box Electronics Store. He is paid a weekly amount of \$250, no matter how much he sells. On top of that, he is paid a 8% commission on his sales.
- a) Draw a graph to model his weekly sales versus his weekly earnings.
  - b) Identify the slope and explain what it means.
  - c) What were Mario's sales in the week that he earned \$346?



Name: \_\_\_\_\_

ID: A

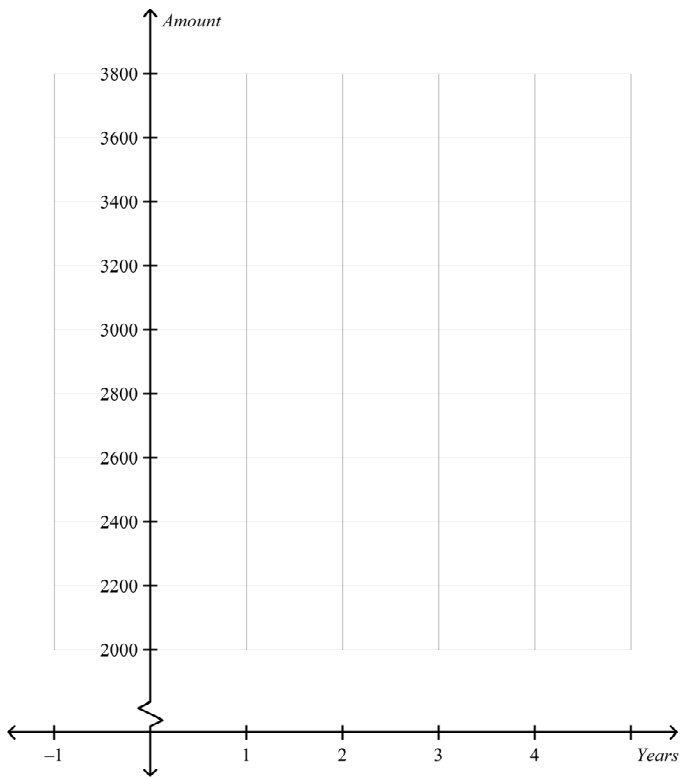
20. The following distance-time graph represents the distance (in kilometres) a person bicycled during a 50-min period. Describe a possible scenario.



21. An amount of \$2000 is deposited in a savings account and earns simple interest. The table shows the amount of money in the account at the end of each year.

Year	Amount (\$)
0	2000
1	2100
2	2200
3	2300

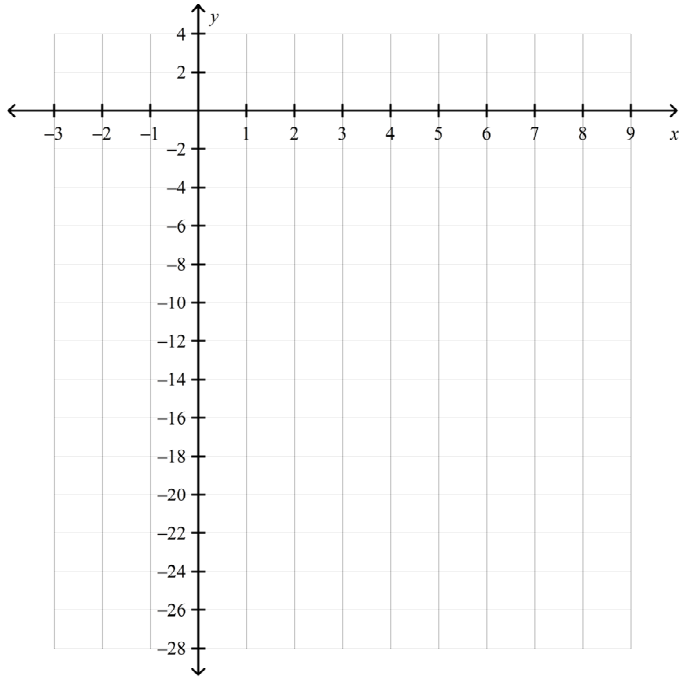
- a) Is this a linear or non-linear relation? Explain.  
b) Graph the relation.  
c) Which is the dependent variable? Which is the independent variable?  
d) How long will it take for the account to reach a value of \$3400?



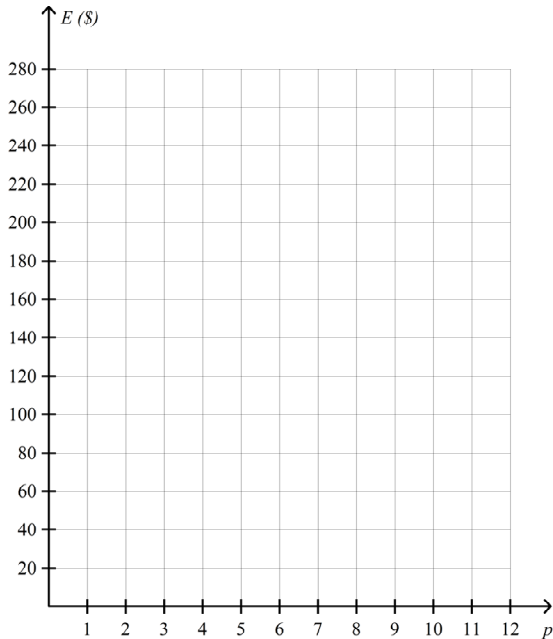
Name: \_\_\_\_\_

ID: A

22. Points  $Q(6, -18)$  and  $P(0, -6)$  are on a line.
- a) Plot points Q and P and draw a line through them.
  - b) Determine the rise from point Q to point P.
  - c) Determine the run from point Q to point P.
  - d) Determine the slope of the line.



23. Sara works at Purse World. For one day of work she earns 10% commission on every purse she sells, plus her daily wage of \$60. Each purse sells for \$140.
- Make a table of values to represent Sara's earnings for 0 to 5 purses sold.
  - Graph the relation.
  - Is the relation a function? Explain.
  - What is the slope of the graph?
  - The equation  $E = 14p + 60$  can be used to represent this situation. How many purses does Sara have to sell to earn \$312 in a day?



### Level 5-6 Questions

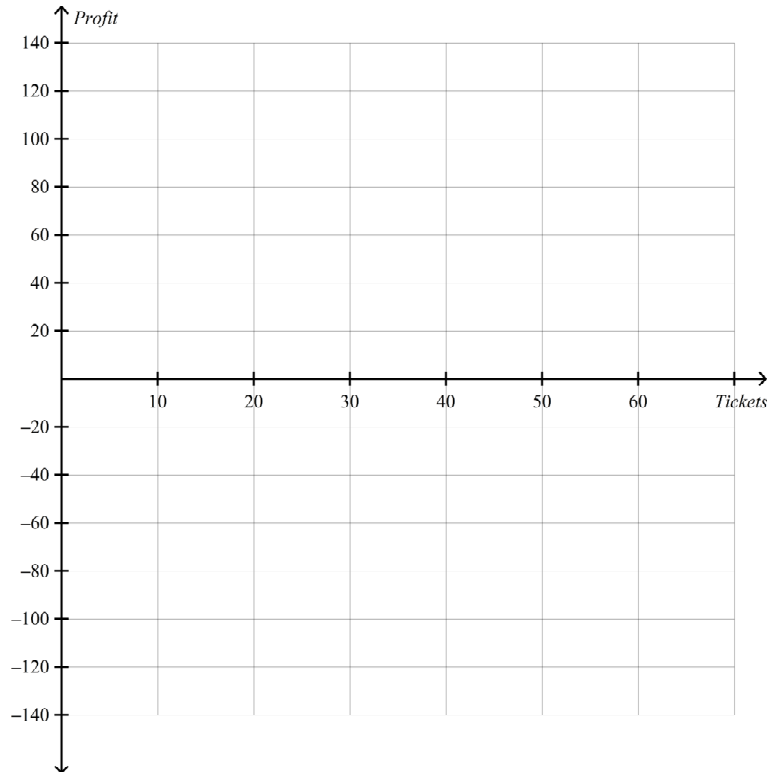
24. Evaluate  $f(-4)$  for the function  $f(x) = 4x^2 - x + 5$ .
25. Identify the range of the function  $y = \frac{3}{x+5}$ .
26. What is the domain of the function  $y = \frac{3x+1}{x+6}$ ?



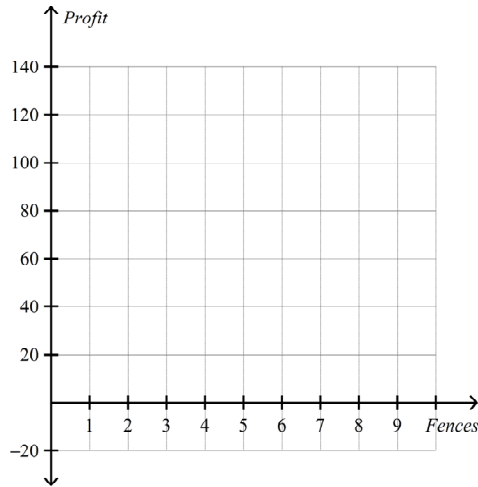
27. John is raising money for charity by selling raffle tickets for \$3 each. The raffle winner will receive a bicycle that John received as a donation. John has spent \$135 to print the tickets. The amount of money raised for the charity is equal to the amount raised by selling tickets minus the cost of printing the tickets. The following table of values represents this situation:

Tickets Sold	Profit (\$)
10	-105
20	-75
30	-45
40	-15
50	15

- Graph the relation.
- Is this a linear or non-linear relation? Explain.
- Are the data discrete or continuous? Explain.
- What are the domain and range of this relation?
- How many tickets must be sold to break even?

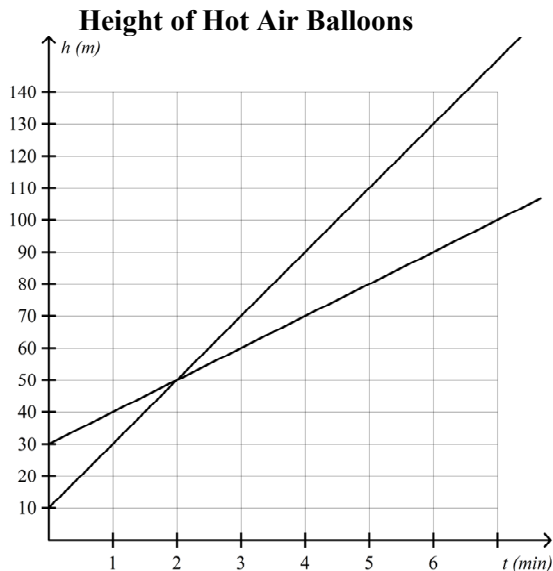


28. Clark earns \$33 for every fence he paints. The cost of paint for one fence is \$18. Before he started painting he spent a total of \$15 for supplies. His profit is equal to his earnings minus all of his expenses.
- Make a table of values for 0 to 5 fences painted.
  - Is the relation linear or non-linear? Explain.
  - Graph the relationship. Are the data discrete or continuous?
  - How many fences would Clark have to paint to earn a profit of \$480?



**Level 7-8 Questions**

29. Aleric and Karlinda are each flying their own hot air balloon. At time 0 min, Aleric’s balloon is closer to the ground than Karlinda’s balloon is. The graph represents the height, in metres, of each balloon after  $t$  minutes.



- What is the initial height of each balloon?
- How fast is each balloon rising?
- Determine the time when the two balloons are at the same height. State the height.