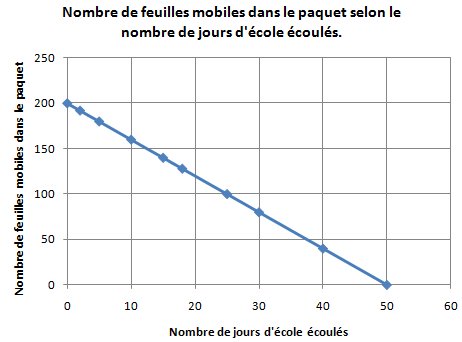
|  |
| --- |
|  |

QUIZ 5 Part IV & 6.1 – 6.3

1. Below is a table which represents the cost of a rental as a function of the number of km travelled.

|  |  |
| --- | --- |
| Distance d (km) | Cost C ($) |
| 0 | 50 |
| 100 | 80 |
| 200 | 110 |
| 300 | 140 |
| 400 | 170 |

a) Is the relation linear? Explain. [1]  
  
  
  
  
b) Which variable will you put on the *y*-axis if you represent this function graphically? [1]  
  
  
  
c) What is the rate of change? And what does it represent? [2]

1. Determine if the following relations are linear. You do not need to justify your answer. [3]  
     
   a) The volume of a sphere:   
     
   b) perimeter of a circle as a function of its radius: .  
     
   c) The relation between the value of a car and the number of year that have passes, if the car loses  
    10% of its value each year.   
     
   d) The number of legs as function of the number of chickens considered.  
     
   e)   
     
   f)
2. Answer the following questions about the graph below:  
     
   

Number of days at school

Number of loose leaf paper

Number of loose leaf paper in relation to the number of days at school

a) What is the independent variable? [1]   
  
  
b) Is this relation linear? Justify [1]  
  
  
c) What is the rate of change? What does it represent? [2]

1. What is the slope and the y-intercept of the following lines: [3]
2. slope: \_\_\_\_\_\_\_  
     
   y-intercept : \_\_\_\_\_\_\_
3. slope: \_\_\_\_\_\_\_  
     
   y-intercept : \_\_\_\_\_\_\_
4. Sketch an example of a line with respect to the following restrictions. [2]

#4 – slope = 0

#1 – positive slope

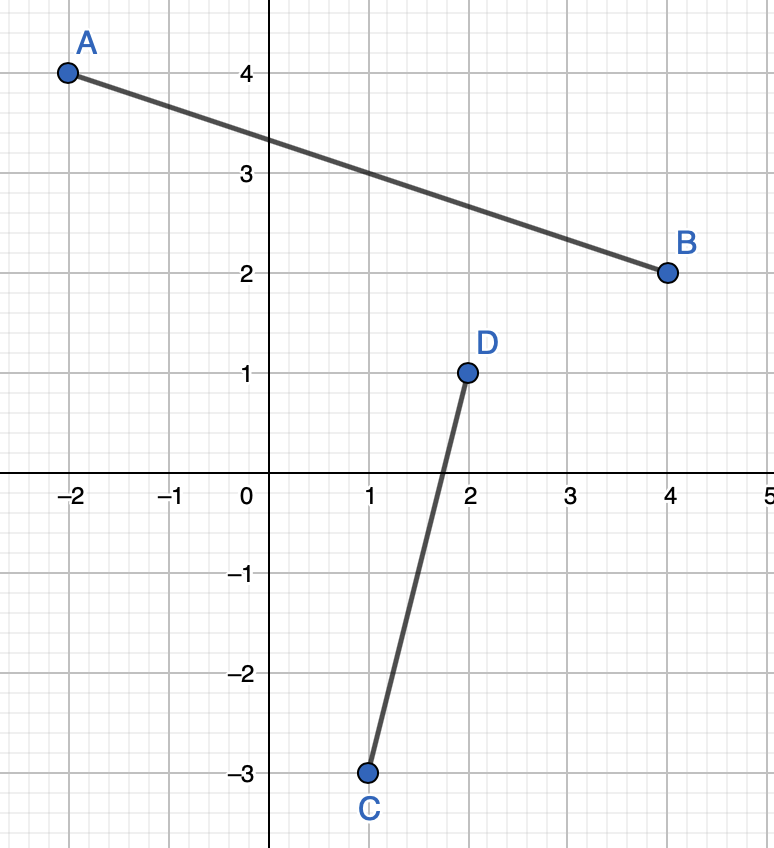
#2 – negative slope

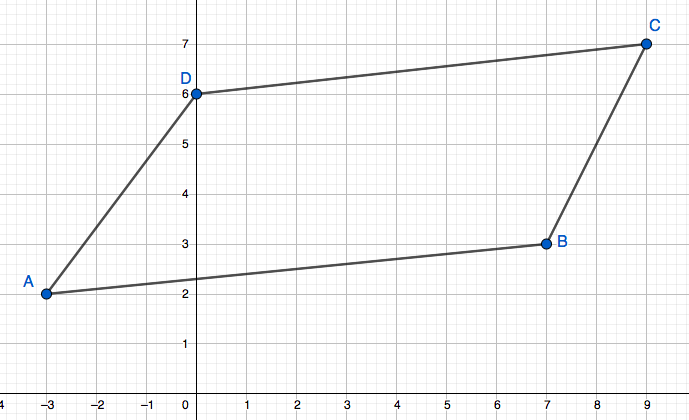
#3 – undefined slope

1. Fill the table with the words: parallel, perpendicular, neither. [3]

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. Determine the slope of a line that passes through the points A(145 ; -3) and B(-15 ; 231). [2]
2. Determine the slope of the segments AB and CD. [2]



1. Consider the points A, B, C et D on the figure below. Is ABCD a parallelogram? Justify. [2]  
   
2. a) On the graph below, place the points A(1 ; -3) and B(-2 ; 4) [1]



b) Determine the coordinates of a possible point C if ABC is a right triangle (right angled at A). [1]

1. Consider the equation
2. What is its y-intercept? [1]
3. What is its x-intercept? [1]
4. Using the information from a) and b), sketch a graph of the equation. [1]

