QUIZ – Chapter 5 Part III & 6.1 – 6.3

1. Below is a table which represents the value of an antique dresser as a function of the number of years since purchase.

|  |  |
| --- | --- |
| Number of years since purchase *t* | Value V ($) |
| 0 | 350 |
| 1 | 400 |
| 2 | 450 |
| 5 | 600 |
| 10 | 850 |

a) Is the relation linear? Explain. [1]  
  
  
  
  
b) Which variable will you put on the *x*-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.   
    [2]  
   a) The volume of a sphere as a function of its radius: .  
     
   b)   
     
   c) The relation between the value of an investment as a function of the number of years, knowing that it increases by 8% each year.   
     
   d) The amount of fuel left as a function of the number of kilometres driven at a constant speed.  
     
   e) )
2. Answer the following questions about the graph below:  
   

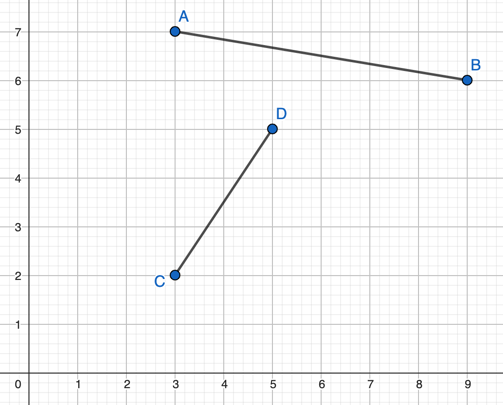
a) What is the independent variable? [1]   
  
  
  
b) Is this relation linear? Justify [1]  
  
  
  
  
c) What is the rate of change? What does it represent? [2]

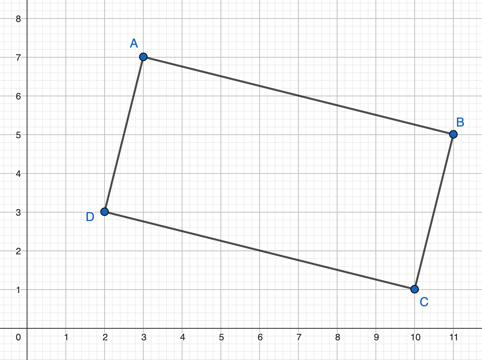
1. What is the slope and the y-intercept of the following lines: [3]
2. slope: \_\_\_\_\_\_\_  
     
   y-intercept : \_\_\_\_\_\_\_
3. slope: \_\_\_\_\_\_\_  
     
   y-intercept : \_\_\_\_\_\_\_
4. Draw a line corresponding to each situation: [2]  
   a) positive slope b) undefined slope  
     
      
   c) negative slope d) slope 0  
     
    
5. Fill the table with the words: parallel, perpendicular, neither. [3]

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1. Determine the slope of a line that passes through the points A(205 ; -140) and B(-20 ; 10).   
    [2]

1. 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 rectangle? Justify. [2]  
     
     
   
2. Consider the equation [2]

Find the *x* and *y*-intercepts and use them to graph it.

