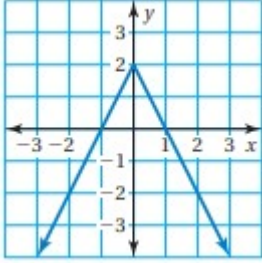
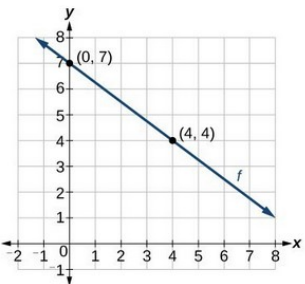


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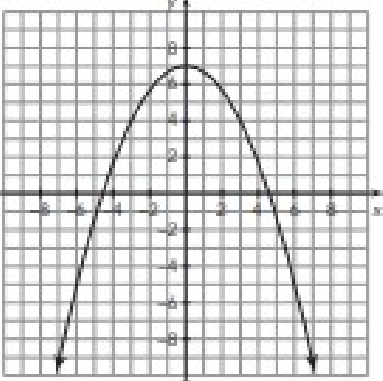
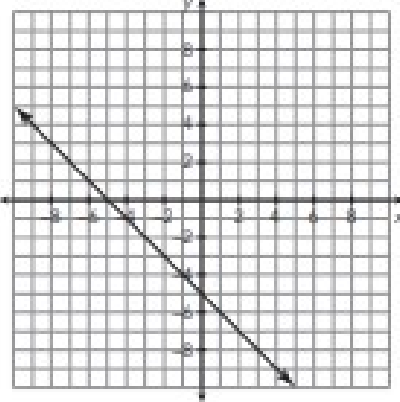
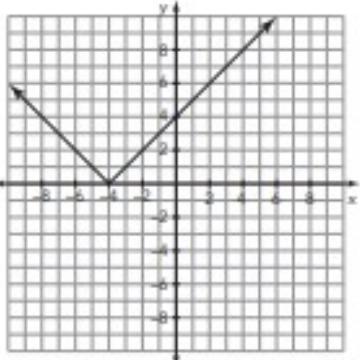
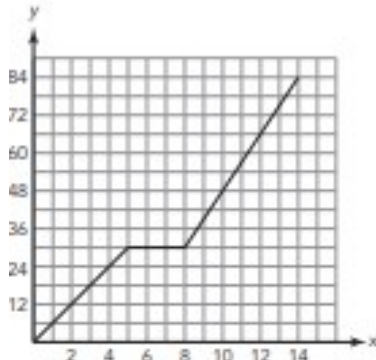
Name _____ Per **A B C D E F** Date: _____

PRACTICE

1. Given the graphs, equations and tables above, identify which tables of values are linear or non-linear functions. If it is a linear function, identify the slope.

<table border="1" style="margin: auto;"> <thead> <tr> <th style="background-color: #d9ead3;">x</th> <th style="background-color: #d9ead3;">y</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">25</td> </tr> <tr> <td style="text-align: center;">7</td> <td style="text-align: center;">20</td> </tr> <tr> <td style="text-align: center;">14</td> <td style="text-align: center;">15</td> </tr> <tr> <td style="text-align: center;">21</td> <td style="text-align: center;">10</td> </tr> </tbody> </table> <p style="text-align: center;">Linear Non-Linear</p>	x	y	0	25	7	20	14	15	21	10	 <p style="text-align: center;">Linear Non-Linear</p>	 <p style="text-align: center;">Linear Non-Linear</p>	$y = \frac{1}{2}x + 1$ <p style="text-align: center;">Linear Non-Linear</p> $5x^2 + 6x + 3 = 0$ <p style="text-align: center;">Linear Non-Linear</p>
x	y												
0	25												
7	20												
14	15												
21	10												

2. For each graph describe the interval of increase, the interval of decrease, or constant interval.

<p>a.</p> 	<p style="text-align: center;">Increasing:</p> <p>_____</p> <p style="text-align: center;">Decreasing:</p> <p>_____</p> <p style="text-align: center;">Constant:</p> <p>_____</p>
<p>b.</p> 	<p style="text-align: center;">Increasing:</p> <p>_____</p> <p style="text-align: center;">Decreasing:</p> <p>_____</p> <p style="text-align: center;">Constant:</p> <p>_____</p>
<p>c.</p> 	<p style="text-align: center;">Increasing:</p> <p>_____</p> <p style="text-align: center;">Decreasing:</p> <p>_____</p> <p style="text-align: center;">Constant:</p> <p>_____</p>
<p>d.</p> 	<p style="text-align: center;">Increasing:</p> <p>_____</p> <p style="text-align: center;">Decreasing:</p> <p>_____</p> <p style="text-align: center;">Constant:</p> <p>_____</p>

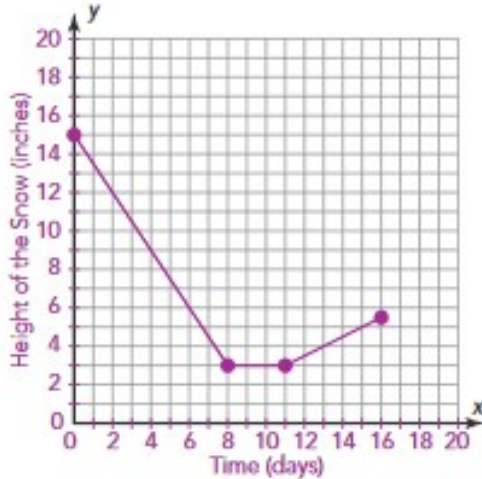
Assignment Page M2-239 – Lesson 4: Over the River and Through the Woods

Name _____ Per **A B C D E F** Date: _____

3. When Randall wakes up Thursday morning, there are **15 inches of snow on the ground**. The meteorologist reports that because the air temperature is slowly **increasing**, the snow will melt at a rate of **1.5 inches per day** for **the next 8 days**. Then extremely cold temperatures over the following **3 days** will prevent the snow from melting anymore. However, on **day 11** of this streak of winter weather, the meteorologist predicts steady snow for the **next 5 days**, but only **1/2 of an inch will accumulate per day**.

Let x represent the time in days since Thursday, and let y represent the height of the snow

- a. Graph the function for the height of the snow over time.



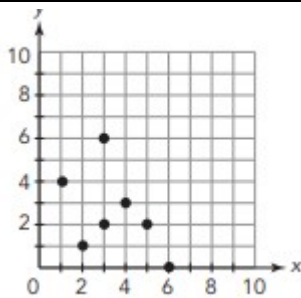
- b. Describe each interval of increase, interval of decrease, or constant interval

Snow Description	Domain (Days)	Graphical Behavior (increasing, decreasing, or constant?)
Melting Snow	$0 \leq d < \underline{\hspace{1cm}}$	
Not Melting	$\underline{\hspace{1cm}} \leq d \leq \underline{\hspace{1cm}}$	
Steady Snow	$\underline{\hspace{1cm}} < d \leq \underline{\hspace{1cm}}$	

REVIEW

4. State the domain and range of each relation. Then determine whether each is a function.

a.



Domain: _____

Range: _____

Function: YES NO

Reason: _____

b.

x	y
-2	2
-1	2
0	2
1	2
2	2

Domain: _____

Range: _____

Function: YES NO

Reason: _____
