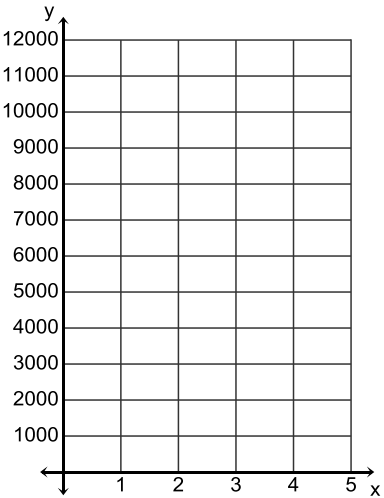


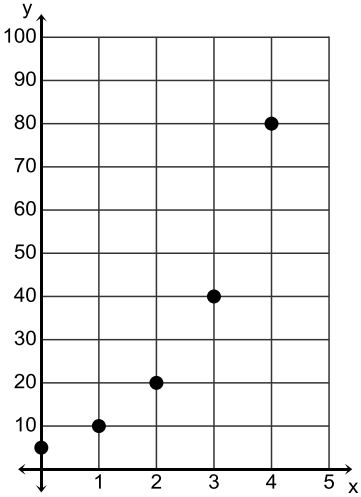
**Notes: T3-48 Lin Vs Exp, Four Repres.**

Directions: In each of the following problems, you are given one of the representations of a linear function. Complete the remaining 3 representations and answer the questions.

1.

<p><u>Context</u></p> <p>Jason bought a new car for \$12,000. Each year the value of the car goes down so that the value is <math>\frac{3}{4}</math> of what it was the previous year.</p>	<p><u>Table</u></p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr><td style="width: 40px; height: 20px;"></td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="width: 40px; height: 20px;">0</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="width: 40px; height: 20px;">1</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="width: 40px; height: 20px;">2</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="width: 40px; height: 20px;">3</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="width: 40px; height: 20px;">4</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="width: 40px; height: 20px;">5</td><td style="width: 40px; height: 20px;"></td></tr> </table>			0		1		2		3		4		5		<p><u>Questions</u></p> <p>a) discrete or continuous</p> <p>b) domain</p> <p>c) range</p> <p>d) What is the value at <math>f(10)</math>?</p>
0																
1																
2																
3																
4																
5																
<p><u>Graph</u></p> 	<p><u>Starting Point (a):</u></p> <p><u>Factor of Change (b):</u></p> <p><u>Equation:</u></p>	<p>e) What is the value at <math>f(15)</math>?</p>														

2.

<u>Context</u>	<u>Table</u>	<u>Questions</u>
<u>Graph</u> 	<u>Starting Point (a):</u>  <u>Factor of Change (b):</u>  <u>Equation:</u>	a) discrete or continuous  b) domain  c) range  d) What is the value at $f(7)$ ?    e) What is the value at $f(11)$ ?

1. Evaluate using  $f(x) = -3x + 5$  and  $g(x) = 8\left(\frac{1}{2}\right)^x$

a)  $f(-1)$

b)  $g(-1)$

c)  $\frac{f(-1)}{g(-1)}$

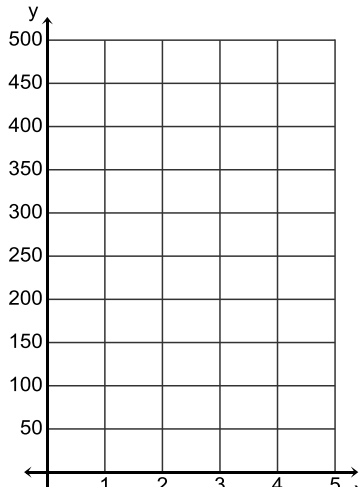
d)  $f(2)$

e)  $g(2)$

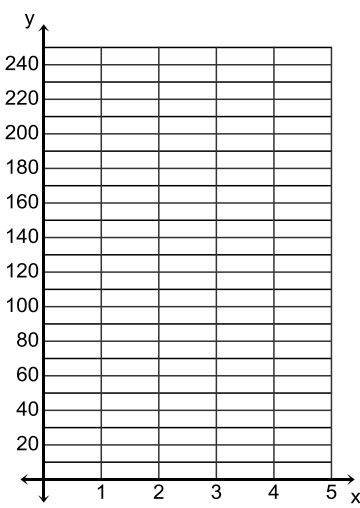
f)  $f(2) + g(2)$

Directions: In each of the following problems, you are given one of the representations of a linear function. Complete the remaining 3 representations and answer the questions.

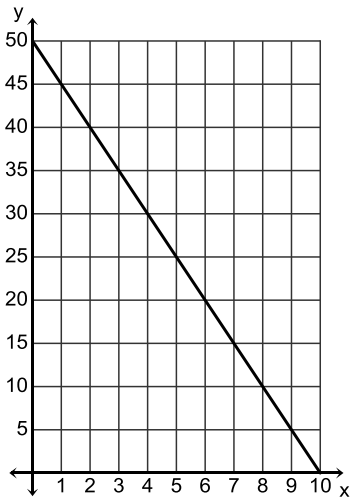
2.

<u>Context</u>	<u>Table</u>	<u>Questions</u>														
<p>There are 500 seals together in the ocean. A shark comes along and eats half the seals in a week. The next week he eats half of the remaining seals and so forth each week.</p>	<table border="1" style="margin: auto; border-collapse: collapse;"> <tr><td style="width: 40px; height: 20px;"></td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="text-align: center;">0</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="text-align: center;">1</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="text-align: center;">2</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="text-align: center;">3</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="text-align: center;">4</td><td style="width: 40px; height: 20px;"></td></tr> <tr><td style="text-align: center;">5</td><td style="width: 40px; height: 20px;"></td></tr> </table>			0		1		2		3		4		5		<p>a) discrete or continuous</p> <p>b) domain</p> <p>c) range</p>
0																
1																
2																
3																
4																
5																
<p><u>Graph</u></p> 	<p><u>Starting Point (a):</u></p> <p><u>Factor of Change (b):</u></p> <p><u>Equation:</u></p>	<p>d) What is the value at <math>f(12)</math>?</p> <p>e) What is the value at <math>f(20)</math>?</p>														

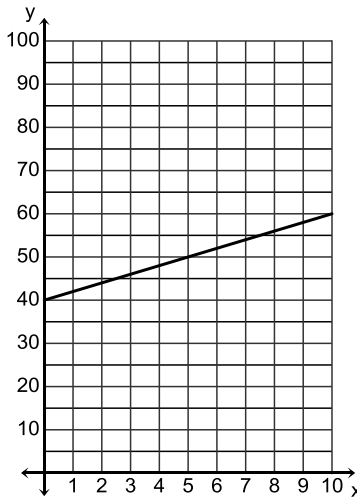
3.

<p><u>Context</u></p>	<p><u>Table</u></p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tr><td style="width: 50px; height: 20px;"></td><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;">0</td><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;">1</td><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;">2</td><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;">3</td><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;">4</td><td style="width: 50px; height: 20px;"></td></tr> <tr><td style="width: 50px; height: 20px;">5</td><td style="width: 50px; height: 20px;"></td></tr> </table>			0		1		2		3		4		5		<p><u>Questions</u></p> <p>a) discrete or continuous</p> <p>b) domain</p> <p>c) range</p>
0																
1																
2																
3																
4																
5																
<p><u>Graph</u></p> 	<p><u>Starting Point (a):</u></p> <p style="text-align: center;">2</p> <p><u>Factor of Change (b):</u></p> <p style="text-align: center;">3</p> <p><u>Equation:</u></p> <p style="text-align: center;"><math>f(x) = 2 \cdot 3^x</math></p>	<p>d) What is the value at <math>f(8)</math>?</p> <p>e) What is the value at <math>f(11)</math>?</p>														

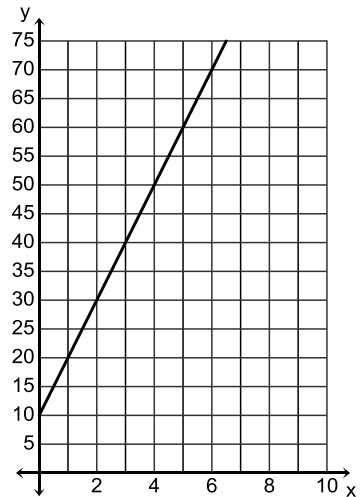
4. Find the slope and y-intercept of each line and then write the equation.



a)



b)



c)