

Exit Ticket 58 – Chapter 3 Review

Use your notes and old exit tickets to complete the problems on this review assignment. Textbook/Notes sections are indicated in parentheses. Have a teacher check your work at the end of each page.

1. Follow the directions in each step to graph and transform the triangle.
(Section 3.02)

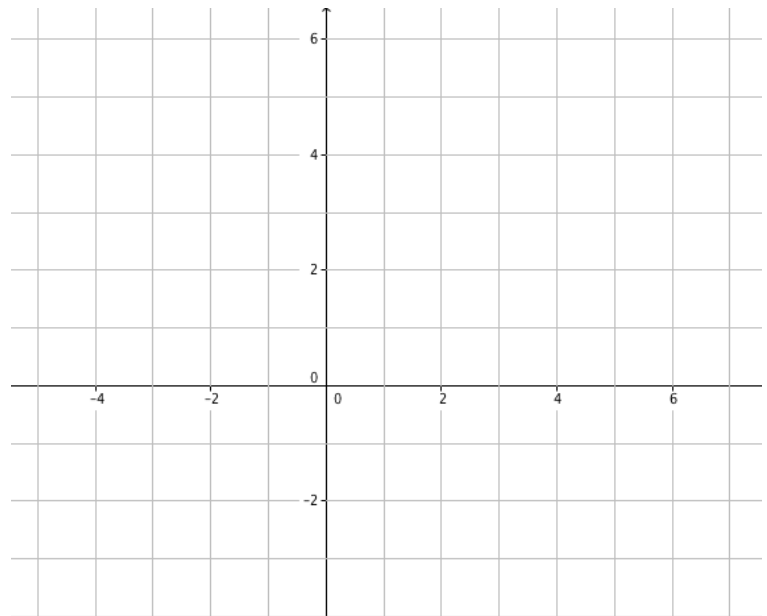
a. Graph triangle ABC with coordinates $A = (1, 3)$, $B = (-3, 4)$ and $C = (-4, 1)$

b. Use the rule $(x, y) \rightarrow (x + 4, y - 2)$ to transform the triangle. Write the coordinates of A' , B' , and C' below.

$A' = (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$

$B' = (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$

$C' = (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$

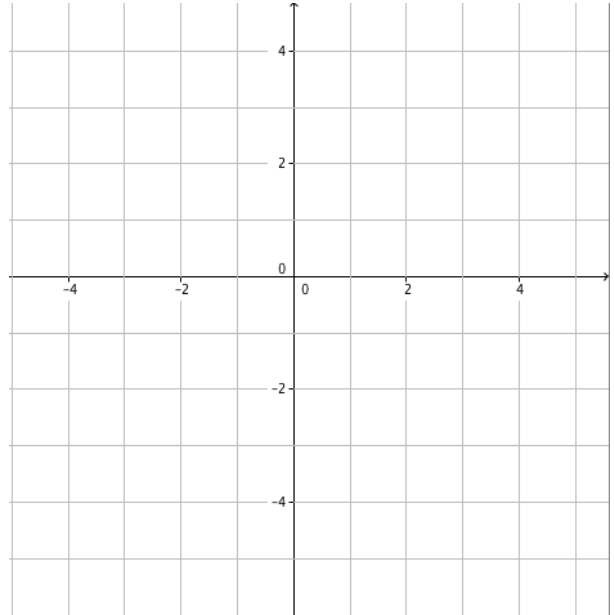


c. Describe how triangle ABC was moved to become triangle $A'B'C'$. Be specific.

2. A line is vertical and passes through the point $(-2, 1)$. (Section 3.03)

a. Graph the line on the coordinate plane.

b. Name three points other than $(-2, 1)$ that are on the line.



c. Write an equation for the line.

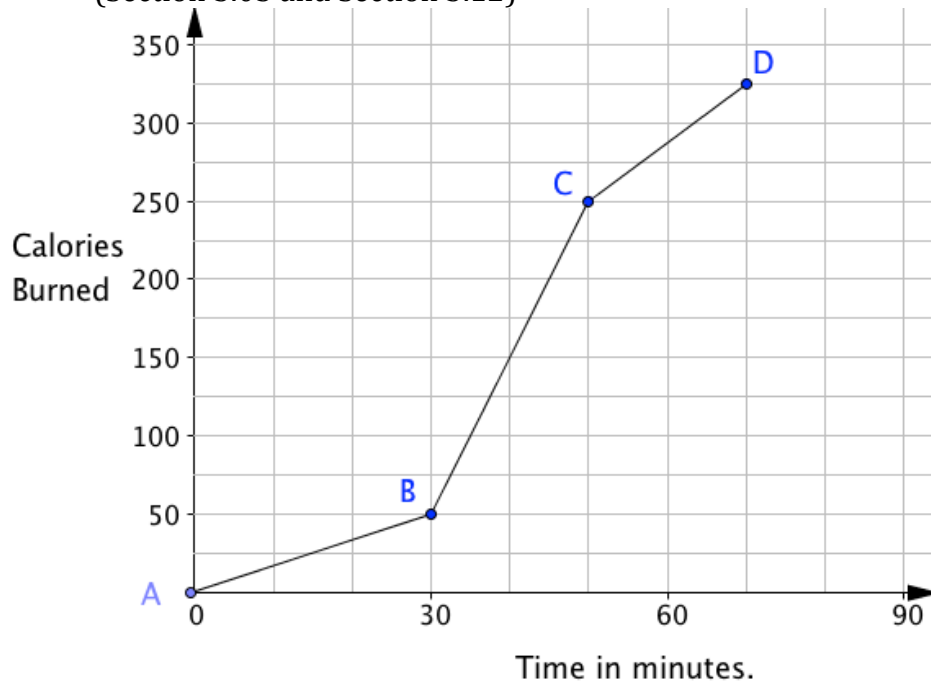
d. A line is horizontal and passes through the point $(3, 4)$. Graph the line on the same grid (above.)

e. Name three points other than $(3, 4)$ that are on the line.

f. Write an equation for the line.

g. What is the intersection of the two lines that you graphed?

3. The following graph shows Mr. Hemm working out. His workout involves running (which burns a lot of calories), lifting weights (which burns a medium amount of calories) and stretching (which burns few calories). (Section 3.05 and Section 3.12)



- During which two points is Mr. Hemm running? How can you tell? Use the word slope in your answer.
- During which two points is Mr. Hemm stretching? How can you tell? Use the word slope in your answer.
- Find the rate of calories burned between points B & C. Show your work and simplify.
- Find the rate of calories burned between A & C. Show your work and simplify.

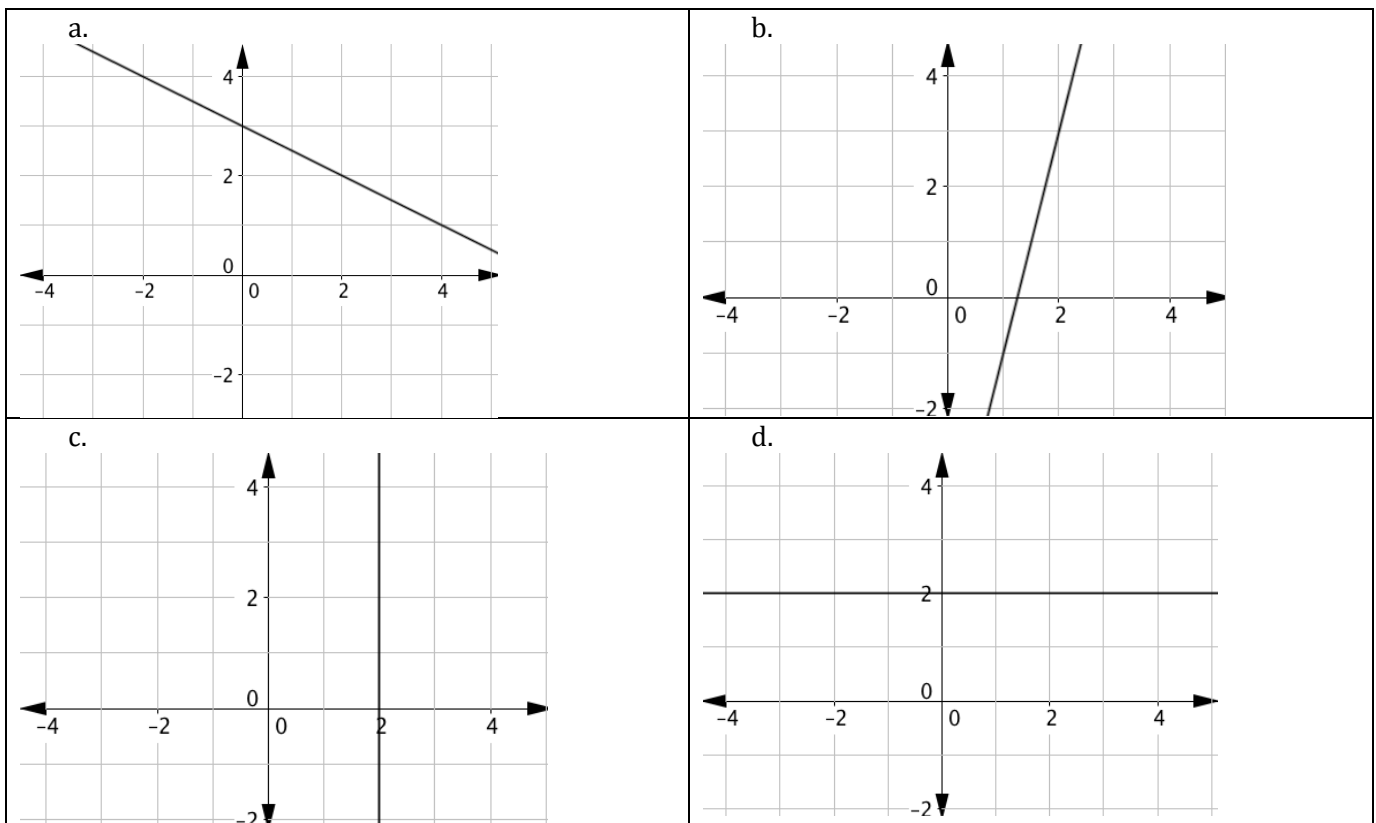
4. Determine whether each point is an intersection of $y = -x^2 + 7$ and $y - 4 = 2x$ by testing the point in each equation. Complete the sentence at the bottom of the box. (Section 3.06)

<p>a. $(-3, -2)$</p> <p>The point _____ an intersection because</p> <p>_____</p> <p>_____</p>	<p>b. $(3, -2)$</p> <p>The point _____ an intersection because</p> <p>_____</p> <p>_____</p>
<p>c. $(-1, 2)$</p> <p>The point _____ an intersection because</p> <p>_____</p> <p>_____</p>	<p>d. $(1, 6)$</p> <p>The point _____ an intersection because</p> <p>_____</p> <p>_____</p>

5. Find the slope between the two points. Show your work and simplify fully.
 (Section 3.11)

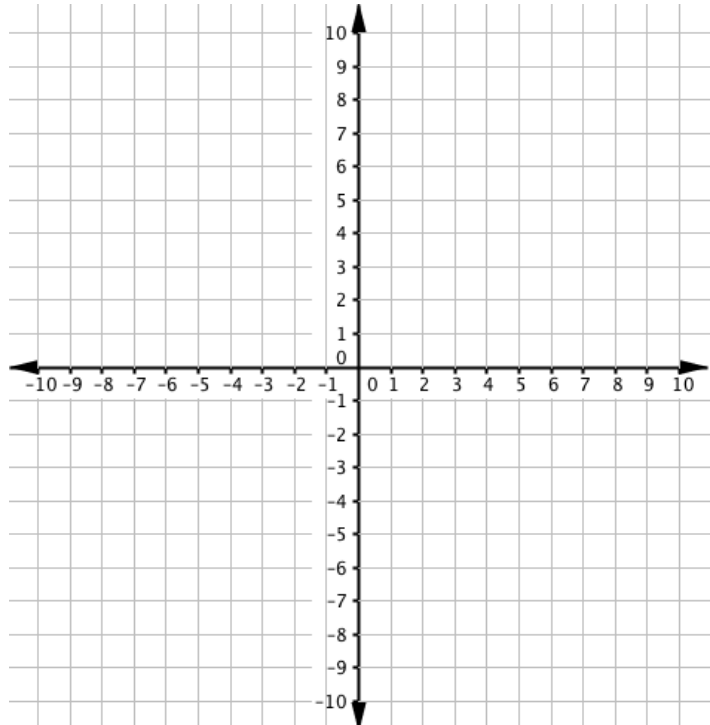
a. $(-2, -2)$ and $(4, 2)$	b. $(1, 4)$ and $(3, -2)$
c. $(-5, 6)$ and $(-5, 12)$	d. $(4, 3)$ and $(-7, 3)$

6. Find the slope of each line by using a slope triangle. Show your work and simplify fully. (Section 3.11)



7. Graph the following equations by plotting points. Be sure to include enough points that you can tell the shape of the graph. Use your graphing calculator and your knowledge of the 6 basic graphs. (Section 3.09)

x	$y = (x - 2)^2$



x	$y = - x + 4 $

