

Name: _____ Date: _____

Chapter 2 – Test

All problems worth 2 points unless noted.

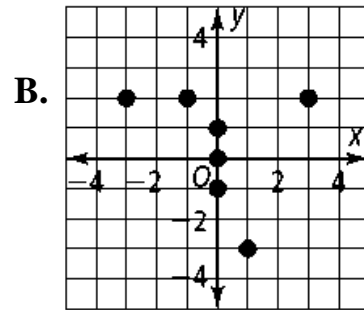
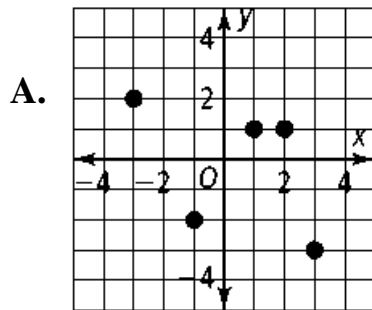
Find the domain of the relation and state if it is a function.

1. $\{(2, 1), (-4, 5), (1, 7), (3, -3), (-1, 2)\}$

- a) $\{-3, 1, 2, 5, 7\}$ not a function b) $\{-3, 1, 2, 5, 7\}$ is a function c) $\{-4, -1, 1, 2, 3\}$ not a function d) $\{-4, -1, 1, 2, 3\}$ is a function

Which of the two relations is a **NOT** function and state its **range**?

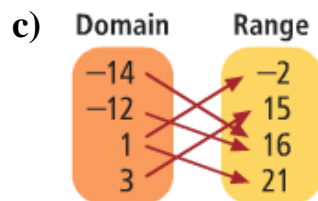
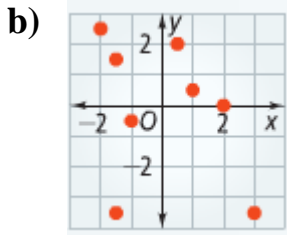
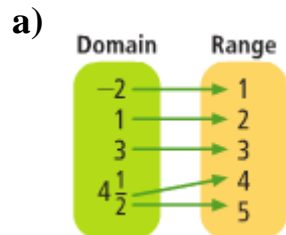
2.



- a) B is **not** a function $\{-3, -1, 1, 2\}$ b) B is **not** a function $\{-3, -1, 0, 1, 3\}$ c) A is a **not** function $\{-3, -2, 1, 2\}$ d) B is **not** a function $\{-3, -1, 0, 1, 2\}$

Determine which relation is a function.

3.



- a) A b) B c) A, B, C, D d) C e) D f) None of the above

4. Which point could not be part of a function that includes (3, -1), (4, 2), (5, 4), (-2, 0), and (8, -3)?

a) (7, 2)

b) (0, -1)

c) (-1, 5)

d) (-2, 4)

5. If y varies directly with x and y is 64 when x is 48, which of the following represents this situation?

a) $x = \frac{4}{3}y$

b) $y = \frac{4}{3}x$

c) $2x = 3y$

d) $2y = 3x$

6. Determine whether y varies directly with x in $6x + 5 = 2y + 5 - 2x$. If so, what is the constant of variation?

answer: _____

7. If y varies directly with x , and $y = 108$ when $x = 36$. What is x when $y = 48$?

answer: _____

8. Which equation of direct variation has (-5, 25) as a solution?

a) $y = -\frac{1}{5}x$

b) $y = -5x$

c) $y = -\frac{1}{125}x$

d) $y = -125x$

9. Which equation does NOT represent a direct variation?

a) $y - 9 = 11x$

b) $\frac{y}{-x} = \frac{9}{-11}$

c) $y = -\frac{9}{11}x$

d) $y = \frac{1}{11}x + 2y$

10. The graph of $y = f(x)$ is reflected in the x -axis and translated 2 units right and up 3 units. Which is the equation of the new graph?

- a) $y = -f(x + 3) + 2$ b) $y = f(-x + 2) + 3$ c) $y = -f(x - 2) + 3$ d) $y = -f(x + 2) + 3$

11. Write the equation that represents the horizontal translation of $y = 8x - 5$ to the left $\frac{1}{2}$ units?

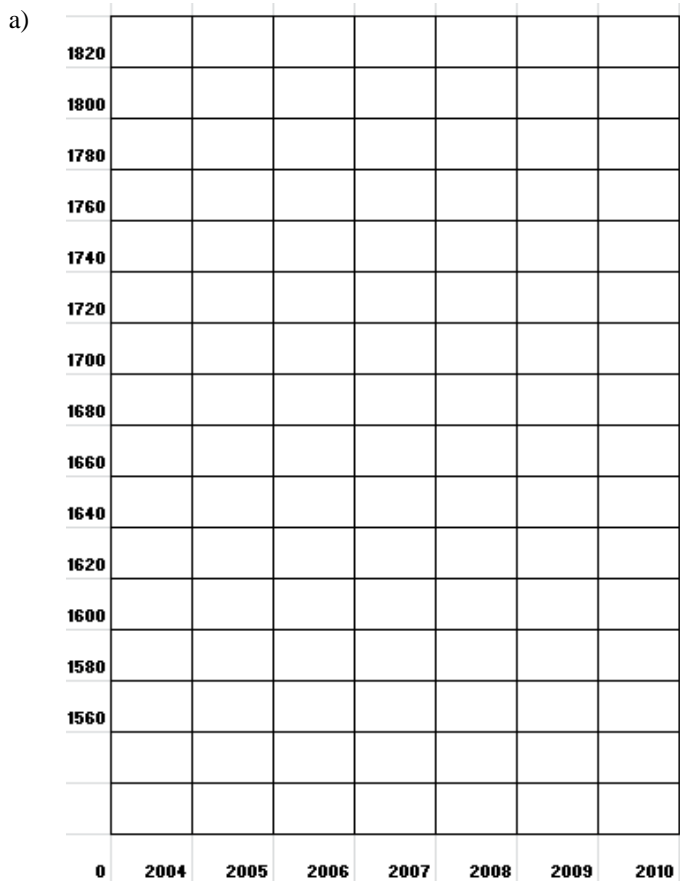
answer: _____

5 Points!

10. The table shows the enrollment at Westside High during the years 2004–2009.

Enrollment at Westside High						
Year	2004	2005	2006	2007	2008	2009
Enrollment	1582	1635	1674	1723	1745	1801

- a. Make a scatter plot of the data and draw a trend line. Let x = the number of years since 2003.
 b. Write the equation of the line of best fit. (*round to the nearest whole number*)
 c. Estimate the enrollment in 2015. (*round to the nearest whole number*)



b) _____

c) _____

