Name _____ Class _____ Date _____

Chapter 2 Part A Quiz

Form K

Lessons 2–1 through 2–4

Do you know How?

Find the domain and range. Graph each relation.

1. $\{(-1, 3), (0, 5), (1, 7), (2, 9)\}$

2. $\{(-2, 0), (0, -1), (4, -3), (6, -4)\}$

Determine whether each relation is a function.

3. $\{(0, 2), (4, 3), (5, 5), (4, 7)\}$

4. $\{(-1, 0), (-5, 2), (0, 4), (2, -8)\}$

Find the *x*- and *y*-intercept of each line.

5. $5y - x = 10$

6. $3x + 4 = y$

7. $2y + 8x = -14$

Write an equation of the line in standard form with the given slope through the given point.

8. 2; (1, 4)

9. $-\frac{2}{3}; (6, -9)$

10. −6; (−3, −2)

Write the equation of each line in slope-intercept form and identify the slope.

11. $2x = 20 - 5y$

12. $7x + y = 12$

13. $2y - x = 6$

Lessons 2–1 through 2-4

Name _____ Class _____ Date _____

Chapter 2 Part A Quiz

Form K

Lessons 2–1 through 2–4

Write an equation of the line in point-slope form through each pair of points.

14. (5, 8) and (0, −2)

15. (1, 3) and (6, −2)

16. (−4, −11) and (−3, −7)

Graph each equation.

17. $5y - 10 = 15x$

18. $4x - 3y = -2$

19. $3 + x + y = 0$

Do you UNDERSTAND?

20. The equation $3x + 2y = 120$ models the number of passengers who can sit in a train car, where x is the number of adults and y is the number of children.
a. Graph the equation. Explain what the x- and y-intercepts mean.
b. If there are 15 children on the train car, how many adults are there?
c. Reasoning What is the domain for this equation?

21. Error Analysis Find the error in the following computation. If y varies directly with x^2, and $y = 2$ when $x = 4$, then $y = 3$ when $x = 6$.

22. If y varies directly with x and $y = 18$ when $x = 6$, what is the constant of variation? Find the value of y when $x = 10$.

23. Open-Ended Graph a function that has a slope that is undefined.