CHAPTER 2

Mid-Chapter Quiz

Lessons 2-1 through 2-4

1. State the domain and range of the relation $\{(2, 5), (-3, 2), (2, 1), (-7, 4), (0, -2)\}$. Is the relation a function? Write *yes* or *no*. (Lesson 2-1)
2. Find $f(15)$ if $f(x) = 100x - 5x^2$. (Lesson 2-1)

For Exercises 3–5, use the table that shows a teacher's class size in recent years. (Lesson 2-1)

Year	Class Size
2002	27
2003	30
2004	29
2005	33

3. Graph the relation.
4. Identify the domain and range.
5. Is the relation a function? Explain your reasoning.

6. Write $y = -6x + 4$ in standard form. Identify A, B, and C. (Lesson 2-2)
7. Find the x-intercept and the y-intercept of the graph of $3x + 5y = 30$. Then graph the equation. (Lesson 2-2)
8. **MULTIPLE CHOICE** What is the y-intercept of the graph of $10 - x = 2y$? (Lesson 2-2)

   A 2 **B** 5 **C** 6 **D** 10

9. What is the slope of the line containing the points shown in the table? (Lesson 2-3)

x	y
1	−1
8	7
15	15

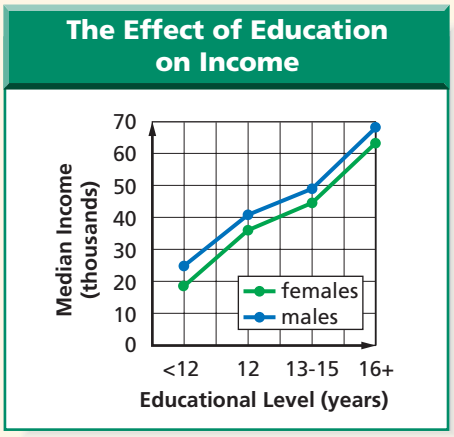
10. Graph the line that passes through $(4, -3)$ and is parallel to the line with equation $2x + 5y = 10$. (Lesson 2-3)

Find the slope of the line that passes through each pair of points. (Lesson 2-3)

11. $(7, 3), (8, 5)$
12. $(12, 9), (9, 1)$
13. $(4, -4), (3, -7)$
14. $(0, 9), (4, 6)$

SCHOOL For Exercises 15 and 16, use the following information.

The graph shows the effect that education levels have on income. (Lesson 2-3)



Source: healthypeople.gov

15. Find the average rate of change of income for females that have 12 years of education to females that have 16+ years of education.
16. Find the average rate of change of income for males that have 12 years of education to males that have 16+ years of education.
17. Write an equation in slope-intercept form of the line with slope $-\frac{2}{3}$ that passes through the point $(-3, 5)$. (Lesson 2-4)
18. **MULTIPLE CHOICE** Find the equation of the line that passes through $(0, -3)$ and $(4, 1)$. (Lesson 2-4)

   F $y = -x + 3$

   G $y = -x - 3$

   H $y = x - 3$

   J $y = x + 3$

PART-TIME JOB Jesse is a pizza delivery driver. Each day his employer gives him \$20 plus \$0.50 for every pizza that he delivers. (Lesson 2-4)

19. Write an equation that can be used to determine how much Jesse earns each day if he delivers x pizzas.
20. How much will he earn the day he delivers 20 pizzas?