CHAPTER 4

NAME _____ DATE _____

SAT/ACT Chapter Test

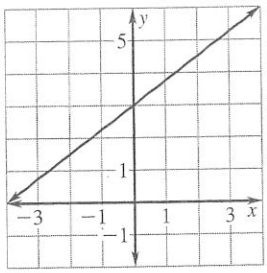
For use after Chapter 4

1. What is the y-intercept of $3x + 2y = 21$?

   (A) $\frac{21}{2}$ (B) 14

   (C) $\frac{2}{21}$ (D) 7

2. What is the equation of the line shown?



   (A) $y = -\frac{3}{4}x + 3$ (B) $y = \frac{3}{4}x + 3$

   (C) $y = -\frac{4}{3}x + 4$ (D) $y = \frac{4}{3}x - 4$

3. Find the slope of the line passing through $(-3, -6)$ and $(7, -2)$.

   (A) -2 (B) 1

   (C) $\frac{4}{5}$ (D) $\frac{2}{5}$

4. Find the value of y so that the line passing through $(-3, y)$ and $(4, 4)$ has a slope of -2.

   (A) 18 (B) 10

   (C) 2 (D) -6

5. The variables x and y vary directly. When $x = 13$, $y = 52$. Which equation correctly relates x and y?

   (A) $y = 13x$ (B) $y = \frac{1}{4}x$

   (C) $y = 52x$ (D) $y = 4x$

6. Find the slope and y-intercept of the graph of $y = \frac{5 - x}{10}$.

   (A) $m = 10$, y-intercept: 5

   (B) $m = -1$, y-intercept: 5

   (C) $m = -\frac{1}{10}$, y-intercept: $\frac{1}{2}$

   (D) $m = -1$, y-intercept: $\frac{1}{2}$

7. Find the value of $f(x) = 2x - \frac{1}{6}$ when $x = 2$.

   (A) $f(2) = \frac{23}{6}$ (B) $f(2) = \frac{1}{2}$

   (C) $f(2) = \frac{25}{6}$ (D) $f(2) = -\frac{23}{6}$

8. The population of a city rises from 100,000 to 226,000 over a ten-year period. Using the points (0, 100,000) and (10, 226,000), find the average rate of change in people per year.

   (A) 0.000079 people per year

   (B) 12,600 people per year

   (C) 0.4375 people per year

   (D) 2.29 people per year

Choose the statement that is true about the given numbers.

9.

Column A	*Column B*
The slope of the line through $(-6, 2)$ and $(4, -2)$	The slope of the line through $(5, 0)$ and $(0, 2)$

   (A) The number in column A is greater

   (B) The number in column B is greater

   (C) The two numbers are equal.

   (D) The relationship cannot be determined from the given information.

Review and Assess