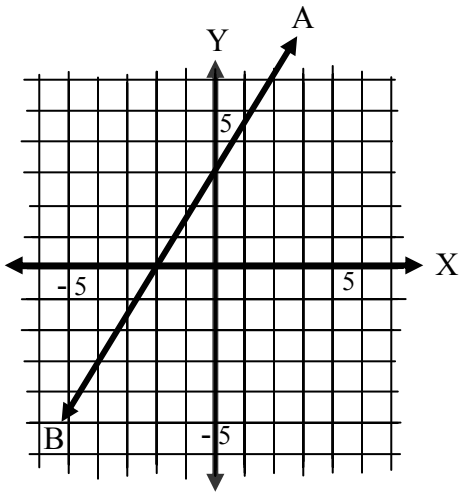
Math 0090 Lab Worksheet #6

Objective: Solve problems #1 - #10 involving linear equations and their graphs. #11 through #15 are review problems.

Use the diagram below to answer the questions that follow.



1. What are the coordinates of the y-intercept of line AB on the graph above?

   A. (0, -2)

   B. (- 2, 0)

   C. (0, -3)

   D. (0, 3)

2. What are the coordinates of the x-intercept of line AB on the graph above?

   A. (0, -2)

   B. (- 2, 0)

   C. (0, -3)

   D. (0, 3)

3. Which of the following points is a solution to the equation of the line AB on the graph above?

   A. (- 4, - 3)

   B. (- 3, - 4)

   C. (- 2, 3)

   D. (3, - 2)

4. Which of the following equations has (4, 2) as one of its solutions?

A. $5x - 8y = 4$

B. $5x - 4y = 16$

C. $x + y = 8$

D. $2x + y = 8$

5. What are the coordinates of the y–intercept of a line whose equation is $4x - 5y = -20$?

A. $(-5, 0)$

B. $(0, -4)$

C. $(0, 4)$

D. $(5, 0)$

6. Which of the following points is part of the solution set of the equation $x + 2y = -7$?

A. $(-7, 0)$

B. $(3, -2)$

C. $(3, 2)$

D. $(7, 0)$

7. What are the coordinates of the x–intercept of a line whose equation is $x - 4y = 3$?

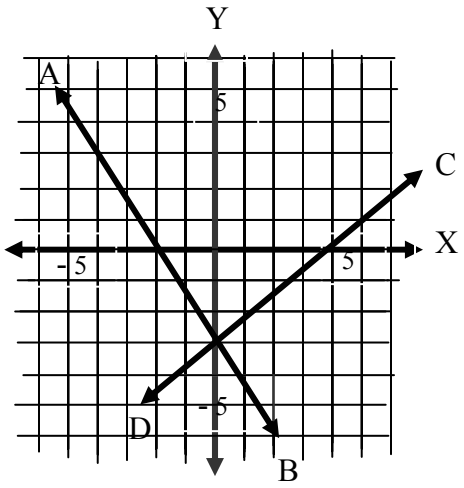
A. $(-4, 0)$

B. $\left(0, -\frac{3}{4}\right)$

C. $(-3, 0)$

D. $(3, 0)$

Use the diagram below to answer the questions that follow.



8. What is the slope of line AB on the graph above?

A. $-\frac{3}{2}$

B. $-\frac{2}{3}$

C. $\frac{2}{3}$

D. $\frac{3}{2}$

9. Which of the following equations represents line AB on the graph above?

A. $y = -\frac{3}{2}x - 3$

B. $y = -\frac{2}{3}x - 3$

C. $y = \frac{2}{3}x - 3$

D. $y = \frac{3}{2}x - 3$

10. What is the slope of line CD on the graph above?

A. $-\frac{3}{5}$

B. $-\frac{5}{3}$

C. $\frac{5}{3}$

D. $\frac{3}{5}$

11. The exterior of a spherical water tank is to be painted. The radius of the tank is 12 ft. How many square feet will be painted?

A. $48\ \pi\ \text{ft}^2$

B. $144\ \pi\ \text{ft}^2$

C. $576\ \pi\ \text{ft}^2$

D. $2304\ \pi\ \text{ft}^2$

12. Which of the following is a factor of $9x^2 + 9x - 54$?

A. $(x + 2)$

B. $(x + 3)$

C. $(9x - 6)$

D. $(9x - 54)$

13. Simplify the expression $5x - 2(x - y) - y$.

A. $3x - 3y$

B. $3x^2 - 3xy - y$

C. $3x - 2y$

D. $3x + y$

14. Perform the indicated operation: $(5x - 2)(3x - 1)$

A. $15x^2 - 11x + 2$

B. $15x^2 + 11x - 2$

C. $15x^2 + 2$

D. $8x^2 - 3$

15. Karen earns 2% of the price of each home she sells as her commission. One week she sold two houses and earned $3,500 as her commission. The selling price of one house was 1½ times the selling price of the other. What was the selling price of the more expensive house?

A. $87,500

B. $105,000

C. $116,666

D. $175,000