

Name _____

Date _____

University of Baltimore
Math 107: College Mathematics
Homework: Chapter 2.4-2.5(C)

BECAUSE THIS IS A GRADED ASSIGNMENT, YOU ARE NOT ALLOWED TO EITHER GIVE OR RECEIVE HELP IN ANSWERING THESE QUESTIONS.

Answer each question as indicated. **Think** first, then write. **Show all your work**, and remember to **check** your answers! If you use scrap paper number your work and hand the scrap paper in. Please place your answers in the spaces provided.

1. Find the a) x -intercept, b) y -intercept, and c) slope of the line $3x - 5y = 15$.

1a. _____

1b. _____

1c. _____

2. Find the slope-intercept equation of the line through the points $(-1, 7)$ and $(-3, 11)$.

2. _____

3. Find the equation of the line through the points $(1, -2)$ and $(5, -2)$.

3. _____

4. A store sells whirligigs. When the retail price is \$10, they sell 150 per month. When the price is raised to \$15, they sell only 125. a) Find the equation which expresses sales (y) as a function of price (x). b) At what price would sales fall to zero?

4a. _____

4b. _____

5. Sketch the graph of $f(x) = \begin{cases} x + 2 & \text{if } x \leq -2 \\ 3 & \text{if } x > -2 \end{cases}$. Label all intercepts with coordinates.

