

Math 172–Assignment # 3

Name: _____

1. Write the following equations in standard form with integral coefficients and a positive coefficient for the x -term.

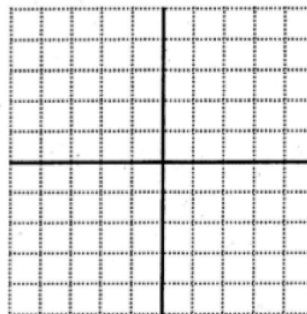
a) $-0.02x = 2.3 - 0.5y$ _____

b) $y = -\frac{5}{3}x + \frac{3}{4}$ _____

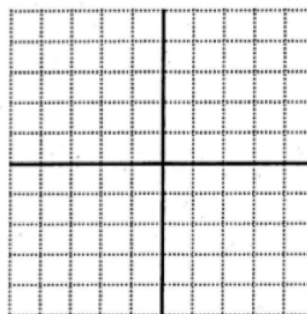
2. What is the equation of the line which runs through the points $(5, -2)$ and $(1, -5)$? Write your answer in both standard form (with integral coefficients) and in slope-intercept form.

3. Graph the following.

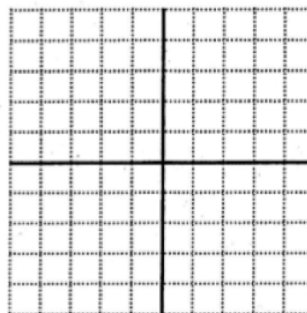
a) $6 - 3y - 2x = 0$



b) $x - 3y \leq 6$ or $x > 7$



c) $4x - 2y \leq -8$ and $y \leq 3$



4. Solve the following systems of equations. Indicate whether the system is independent, inconsistent, or dependent.

a) $y = -\frac{3}{5}x + 6$
 $x = -\frac{5}{3}y + 10$

b) $3x - 2y = 19$
 $5x + 4y = 17$

5. Solve the following system of equations.

$$x + 2y + 3z = 12$$

$$x - 2y - z = -4$$

$$3x - 3y + z = 2$$

6. Mack's Tee-Shirt Shack sold 36 shirts one day. All short-sleeved shirts cost \$12 and all long-sleeved shirts cost \$18. The total sales for the day were \$522. Solve a system of equations to find out how many of each kind of shirt were sold.

7. Admission to Science World is \$5.50 more for an adult than for a child. Admission to the museum for Barbie and Ken and their five children costs \$39. Find the cost of admission for each adult and each child.

8. Every year the Times Colonist holds a book sale. All hardcover books sell for the same price, all paperbacks sell for another price and all magazines have a third price. Edgar buys three hardcovers, one paperback and four magazines for \$4.50. Cynthia buys four paperbacks and two magazines for \$2.50. Herbert buys one hardcover, two paperbacks and two magazines for \$2.50. How much must you pay in total if you want one hardcover, one paperback and one magazine?