

MIDTERM 1

Math 110 (Doherty)
October 20, 2006
75 points

Name _____

1. Solve each equation and state the solution set.

(a) $\{\frac{2}{3}\}$

(b) \mathbb{R}

2. $x = \frac{5z - 5}{y - 1}$ or $x = \frac{5 - 5z}{1 - y}$

3. Solve each inequality. Give the solution set both graphically and using interval notation.

(a) $[-1, \frac{7}{3})$

(b) $(-\infty, -3] \cup (1, \infty)$

4. 2 liters of 5%, 3 liters of 10%

5. 4 inches by 6 inches

6. The equations for the lines:

(a) Slope-intercept form:

$$y = -\frac{3}{2}x + 2$$

Standard form:

$$3x + 2y = 4$$

(b) Slope-intercept form:

$$y = -\frac{5}{3}x - \frac{4}{3}$$

Standard form:

$$5x + 3y = -4$$

7. See me if you have questions on these graphs.