

Algebra 3 Assignment # 3

Evaluate:

$$(1) \begin{vmatrix} 17 & -3 \\ 20 & 2 \end{vmatrix}$$

$$(2) \begin{vmatrix} 10 & 5 \\ 6 & -3 \end{vmatrix}$$

Solve using Cramer's Rule:

$$(3) \begin{cases} -4x + 10y = 8 \\ 11x - 9y = 15 \end{cases}$$

$$(4) \begin{cases} 5x + 2y = 3 \\ 2x + 3y = -1 \end{cases}$$

$$(5) \begin{cases} \frac{1}{2}x + \frac{3}{8}y = 13 \\ x - \frac{3}{8}y = -42 \end{cases}$$

$$(6) \begin{cases} 9x - 12 = 4y \\ 3x + 2y = 3 \end{cases}$$

Solve for the variable:

$$(7) \begin{vmatrix} x & 2 \\ 5 & 3 \end{vmatrix} = 8$$

Answers:

1. 94

2. 0

3. $x = 3$; $y = -2$

4. $x = 18/11$ $y = -1$

5. $x = 36 \frac{2}{3}$ $y = 60 \frac{2}{5}$

6. $x = 6/5$ $y = -3/10$

7. $x = 6$