

Math 80
Exam 2 Answers

1. (a) $2x + \frac{11}{14}$

(b) $5t^2 - 9t + 12$

(c) $-0.3y^9 + 1.2y^3 - 0.3y^2$

(d) $2x^2 - x - 15$

(e) $x^2 - 2x + 4$

2. (a) $9t^2(4t - 3)$

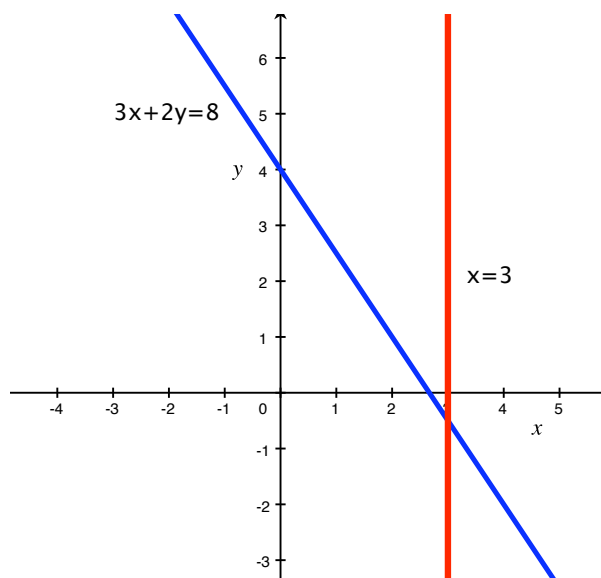
(b) $8ab(a + 2b^2)$

3. (a) $(-5, 5)$

(b) $(3, -4)$ (Clearing fractions first makes this system easier to solve.)

4. (a) $3x + 2y = 8 \Rightarrow y = -\frac{3}{2}x + 4$

(b) This is a vertical line through any points of the form $(3, y)$.



5. **Unknowns:** Quarters = q , Dimes = d

Equations: $q + d = 200$ $0.25q + 0.10d = 38$

Solution: $q = 120$, $d = 80 \Rightarrow$ Ernie has 120 quarters and 80 dimes.

6. Slope of Line = $\frac{9-0}{-1-2} = \frac{9}{-3} = -3$

Point-Slope Form: $y - 0 = -3(x - 2)$ or $y - 9 = -3(x + 1)$

\Rightarrow Slope-Intercept Form: $y = -3x + 6$