

Final Review #1

Pg 906

$$\begin{array}{r} (17) \quad -9x + 6y = 0 \\ +9x \qquad +9x \\ \hline 6y = 9x \\ y = \frac{3}{2}x \end{array}$$

$$\begin{array}{r} -12x + 8y = 5 \\ +12x \qquad +12x \\ \hline 8y = 12x + 5 \\ y = \frac{3}{2}x + \frac{5}{8} \end{array}$$

Same slope $\rightarrow$ // lines $\rightarrow$ No solution

$$(18) \quad (2x^3)^4 \cdot x^9 \\ 2^4 x^{12} x^9 \\ \boxed{18x^{21}}$$

$$(19) \quad (-9x^3)^2 (-1/4x^6) \\ (-9)^2 x^6 \cdot -1/4 x^6 \\ \boxed{\frac{-81x^{12}}{4}}$$

$$(20) \quad (3x)^{-3} y^3 \\ \frac{x^2 y^{-1}}{x^2 y^{-1}} =$$

$$\left(\frac{3^{-3} x^{-3} y^3}{x^2 y^{-1}} \right) =$$

$$\frac{x^{-5} y^4}{27} =$$

$$\boxed{\frac{y^4}{27x^5}}$$

$$(21) \quad (a - 18)(a + 3)$$

$$(22) \quad -(3b^2 + 22b + 7) = \boxed{-(3b + 1)(b + 7)}$$

$$(23) \quad (2f + g)(2f + g) \text{ or } (2f + g)^2$$

$$(24) \quad (p - 5)(p^2 - 9) = \boxed{(p - 5)(p + 3)(p - 3)}$$

$$(25) \quad \begin{array}{l} x + 7 = 0 \\ x = -7 \end{array} \quad \begin{array}{l} x - 3 = 0 \\ x = 3 \end{array}$$

$$(27) \quad 8x^2 - 36x + 16 = 0 \\ 8(x^2 - 4x + 2) = 0 \\ x = \frac{36 \pm \sqrt{(-36)^2 - 4(8)(16)}}{2(8)}$$

$$x = \frac{36 \pm 28}{16} \quad \boxed{x = 4, 1/2}$$

$$(26) \quad A = 9 \quad B = -28 \quad C = 3$$

$$x = \frac{28 \pm \sqrt{(-28)^2 - 4(9)(3)}}{2(9)}$$

$$x = \frac{28 \pm 26}{18} \quad \begin{array}{l} x = \frac{28 + 26}{18} \\ x = \frac{28 - 26}{18} = \frac{2}{18} \end{array}$$

$$\boxed{x = 3}$$

$$\boxed{x = 1/9}$$

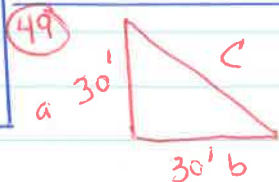
$$(28) \quad (\sqrt{x+8})^2 = (-8)^2$$

$$x + 8 = 64$$

$$\boxed{x = 56}$$

$$C: \sqrt{58+8} = -8 \\ 8 \neq -8$$

$$\boxed{x = \text{NO SOLUTION}}$$



$$30^2 + 30^2 = c^2$$

$$1800 = c^2$$

$$\boxed{c = 42.4 \text{ ft for guy wire}}$$