

36. $(\cancel{x^2} + xy + y^2)(x - y)$

$$\begin{array}{r} x^3 - \cancel{xy^2} + \cancel{xy^2} - \cancel{xy^2} + \cancel{xy^2} - y^3 \\ \hline x^3 - y^3 \end{array}$$

43. $(10x^2 - 3xy + 4y^2) - (3x^2 + 5xy)$

$$\begin{array}{r} 10x^2 - \cancel{3xy} + \underline{4y^2} - \underline{3x^2} - \underline{5xy} \\ \hline 7x^2 - 8xy + 4y^2 \end{array}$$

$$(-4x^2 + 2x + 3) - 3(2x^2 - 5x + 1) =$$

$$\underline{-4x^2} + \underline{2x} + \underline{3} - \underline{6x^2} + \underline{15x} - \underline{3}$$

$$\underline{-10x^2 + 17x}$$

$$(1+4c)^2$$

$$(1+4c)(1+4c)$$

$$1 + 8c + 16c^2$$

$$16c^2 + 8c^5 + 1x^5$$

$$\frac{5x-2}{5}$$

$$\frac{\cancel{5}x}{\cancel{5}} - \frac{2}{5}$$

$$x - \frac{2}{5}$$

1 Simplify $\frac{4x^3y^2 + 8xy^2 - 12x^2y^3}{4xy}$.

$$\frac{\cancel{4}x^3y^2}{\cancel{4}xy} + \frac{\cancel{8}xy^2}{\cancel{4}xy} - \frac{\cancel{12}x^2y^3}{\cancel{4}xy}$$

$$x^2y + 2y - 3xy^2$$

$$\frac{x}{x} = 1$$

$$\frac{2}{2} = 1$$

$$\frac{5}{5} = 1$$

1B. $\frac{16a^5b^3 + 12a^3b^4 - 20ab^5}{4ab^3}$

$$\frac{16a^5b^3}{4ab^3} + \frac{12a^3b^4}{4ab^3} - \frac{20ab^5}{4ab^3}$$

$$4a^4 + 3a^2b - 5b^2$$

1D. $(18x^2y + 27x^3y^2z)(3xy)^{-2}$

$$\frac{18x^2y + 27x^3y^2z}{(3xy)^2} = \frac{18x^2y + 27x^3y^2z}{9x^2y^2}$$

$$\frac{18x^2y}{9x^2y^2} + \frac{27x^3y^2z}{9x^2y^2}$$

$$2y^{-1} + 3xz$$

$$\frac{2}{y} + 3xz$$

$$\begin{array}{r} 15 \frac{5}{24} \\ 24 \overline{) 365} \\ \underline{- 24} \downarrow \\ 125 \\ \underline{- 120} \\ 5 \end{array}$$

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$$18 \overline{) 9562}$$