

$$1) \quad x^2 \overset{\text{diffn}}{+} x - 12$$

$$(x - 3)(x + 4)$$

$$\begin{array}{r} 12 \\ \hline 1 \quad 12 \\ \hline 2 \quad 6 \\ \hline -3 \quad +4 \end{array}$$

$$5) \quad 50x^3y^3 + 20xy^5 - 10xy^4$$

$$2) \quad \frac{24y + 6}{6} \quad \frac{6}{6}$$

$$6[4y + 1]$$

$$6) \quad x^2 - 81$$

$$3) \quad \frac{k^2}{k} - \frac{7k}{k} + \frac{2km}{2m} - \frac{14m}{2m}$$

$$\frac{k(k-7)}{k-7} + \frac{2m(k-7)}{k-7}$$

$$(k-7)(k+2m)$$

$$7) \quad 6n^2 - 11n - 7$$

$$4) \quad 5x^2 - 14x + 8$$

$$\frac{5x^2}{x} - \frac{4x}{x} - \frac{10x}{-2} + \frac{8}{-2}$$

$$\frac{x(5x-4)}{5x-4} - \frac{2(5x-4)}{5x-4}$$

$$(5x-4)(x - 2)$$

$$\begin{array}{r} 40 \\ \hline 1 \quad 40 \\ \hline 2 \quad 20 \\ \hline -4 \quad -10 \\ \hline 5 \quad 8 \end{array}$$

$$8) \quad x^2 + 15x - 54$$

9) $3m^2 - 33m + 72$

10) $20 + 5a + 12b + 3ab$

11) $x^2 + 2xy - 48y^2$

12) $25x^2 - 49$

13) $3x^2 - 35x - 12$

14) $24t^4u^4 - 6t^2u^2 + 8t^3u$

15) $3n^2 - n$

16) $21x^3 + 7x^2 - 28x$