

15. $4x^2 + 4x + 1$
 $\begin{matrix} 2x & 1 \\ 4x & 1 \end{matrix}$
 $(2x + 1)(2x + 1)$
 $4x^2 + 2x + 2x + 1$
 $4x^2 + 4x + 1$

16. $3x^2 - 4x - 4$ $\begin{matrix} 2, 6 \\ 2, 2, 3 \\ 3, 1, 4 \\ 3, 4 \end{matrix}$
 $(3x + 2)(x - 2)$
 $3x^2 - 6x + 2x - 4$
 $3x^2 - 4x - 4$

17. $x^4 - 3x^2 - 4$ $\begin{matrix} 2, 2 \\ 1, 4 \end{matrix}$
 $(x^2 - 4)(x^2 + 1)$
 $(x + 2)(x - 2)(x^2 + 1)$
 $x^2 - 2x + 2x - 4$
 $x^2 - 4$

18. $75n^3 - 3n$
 $n(75n^2 - 3)$
 $3n(25n^2 - 1)$
 $3n(5n + 1)(5n - 1)$

check: $(15n^2 + 3n)(5n - 1)$
 $2 \cdot 3 \cdot 4 \quad 75n^3 - 15n^2 + 15n^2 - 3n$
 $75n^3 - 3n \checkmark$

$$21. \left(\frac{3x}{y^3}\right)^2$$

$$\left(\frac{9x^2}{y^6}\right)$$

$$22. (x^2y^{-5})(2x^{-4}y^4)$$

$$2x^{-2}y^{-1} = \frac{2}{x^2y}$$

$$23. \frac{18x^3y}{12x^2y^4} = \frac{9x}{6y^3} = \frac{3x}{2y^3}$$

$$24. \left(\frac{m^2}{n}\right)^{-2} \left(\frac{m^0}{n^{-1}}\right)^3$$

$$\left(\frac{m^{-4}}{n^{-2}}\right) \left(\frac{m^0}{n^{-3}}\right)$$

$$\frac{n^2}{m^4} \cdot \frac{n^3}{1} = \frac{n^5}{m^4}$$

$$\begin{aligned}
 28. & 2b(b+1)(b-2) \\
 & (2b^2 + 2b)(b-2) \\
 & 2b^3 - 4b^2 + 2b^2 - 4b \\
 & \boxed{2b^3 - 2b^2 - 4b}
 \end{aligned}$$

$$\begin{aligned}
 32. & \frac{3x^2}{3} = \frac{75}{3} \\
 & \sqrt{x^2} = \sqrt{25} \\
 & \boxed{x = \pm 5}
 \end{aligned}$$

DON'T FORGET
± !!!

$$\begin{aligned}
 35. & \frac{6\sqrt{2} \cdot \sqrt{3}}{\sqrt{3} \cdot \sqrt{3}} = \frac{6\sqrt{6}}{3} = \frac{6\sqrt{6}}{3} \\
 & \boxed{2\sqrt{6}}
 \end{aligned}$$

$$37) \sqrt{-9} = 3i$$

$$36. \sqrt{6} \cdot \sqrt{10} = \sqrt{60}$$

$2\sqrt{15}$

$$\begin{aligned}
 38. & (3-i) + (2+3i) \\
 & 5+2i \quad \dots
 \end{aligned}$$

$\begin{array}{c} 10 \\ / \quad \backslash \\ 2 \quad 5 \\ \backslash \quad / \\ 3 \quad 3 \end{array}$