


$$2) \quad \underline{v^2} - 12v + \underline{35}$$

$$(v - 7)(v - 5)$$

$$-7v + -5v = -12v$$

$$\begin{array}{r|l} 35 & \\ \hline 1 & 35 \\ 5 & 7 \end{array}$$

$$4) \quad 10\underline{x^2} + 17x + \underline{6}$$
$$\begin{array}{r} 10 \\ \hline 5 \end{array} \bigg| \begin{array}{l} 10 \\ 2 \end{array}$$
$$(2x + 1)(5x + 6)$$


$$\begin{array}{r} 6 \\ \hline 2 \end{array} \bigg| \begin{array}{l} 6 \\ 3 \end{array}$$

$$5x + 12x = 17x$$

$$\begin{array}{l}
 (6) \quad 9b^2 - 1 \\
 \quad \quad \underline{\underline{9b^2}} + \underline{\underline{0b}} - \underline{\underline{1}} \\
 \quad \quad (3b + 1)(3b - 1) \\
 \quad \quad \underbrace{\hspace{10em}} \\
 \quad \quad 3b + -3b = 0b
 \end{array}$$

$$8) \quad 9z^2 + 12z + 4$$

$$\frac{9}{3} \bigg/ \frac{4}{3}$$

$$(3z+2)(3z+2)$$

$$\frac{4}{2} \bigg/ \frac{4}{2}$$

$$6z + 6z = 12z \checkmark$$

$$(3z+2)^2$$

$$10) \quad \frac{6d^2 + 27d + 30}{3} = 0$$

$$\frac{6d^2}{3} + \frac{27d}{3} + \frac{30}{3} = 0$$

$$3(\underline{2d^2} + \underline{9d} + \underline{10}) = 0$$

$$\frac{2}{-1} \quad \frac{2}{2}$$

$$3(1d+2)(2d+5) = 0 \quad \begin{array}{r} 10 \\ \underline{-10} \\ 2 \end{array} \quad \begin{array}{r} 10 \\ \underline{-10} \\ 5 \end{array}$$

$$1d+2=0$$

$$\begin{array}{r} -2 \\ \underline{-2} \end{array}$$

$$d = -2$$

$$2d+5=0$$

$$\begin{array}{r} -5 \\ \underline{-5} \end{array}$$

$$\frac{2d}{2} = \frac{-5}{2}$$

$$d = -\frac{5}{2}$$

$$(2) \quad -3x^2 + 16 = -32$$
$$\quad \quad \quad -16 \quad -16$$

$$\frac{-\cancel{3}x^2}{-\cancel{3}} = \frac{-48}{-3}$$
$$\sqrt{x^2} = \sqrt{16}$$

$$x = \pm 4$$

$$14) -5x^2 + 5x + 5 = 0$$

$$a = -5 \quad b = 5 \quad c = 5$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-5 \pm \sqrt{(5)^2 - 4(-5)(5)}}{2(-5)}$$

$$x = \frac{-5 \pm \sqrt{25 + 100}}{-10}$$

$$x = \frac{-5 \pm \sqrt{125}}{-10}$$

$$\begin{array}{r} 125 \\ 1 \overline{) 125} \\ 5 \overline{) 25} \end{array}$$

$$\frac{\sqrt{25} \cdot \sqrt{5}}{5\sqrt{5}}$$

$$x = \frac{-5 \pm 5\sqrt{5}}{-10}$$

$$x = \frac{-1 \pm \sqrt{5}}{-2}$$