

Answers: Review 2A for 2C WS

$$1. x^2 - 3x + 5$$

$$2. 4x^2 + 5x + 5 - \frac{10}{x-1}$$

$$3. x^2 + 3x - 2$$

$$4. 3x^2 - 10x + 3 + \frac{3}{3x-1}$$

$$5. 6x^3 - 3x^2 + 9x - 27 + \frac{87}{x+3}$$

$$6. 2x^2 + 5x - 1$$

$$\begin{array}{r}
 \begin{array}{c} 4 \\ \boxed{\frac{1}{3}} \end{array} \quad \begin{array}{r} 9 \\ \downarrow \\ \frac{9}{3} \end{array} \quad \begin{array}{r} -33 \\ 3 \\ \frac{-30}{3} \end{array} \quad \begin{array}{r} +19 \\ -10 \\ \frac{9}{3} \end{array} \quad \begin{array}{r} 0 \\ 3 \\ \frac{3}{3} \end{array} \\
 \hline
 3x^2 - 10x + 3 + \frac{3}{3x-1}
 \end{array}$$

$$7. \text{ FF: } (2x - 5)(4x^2 + 10x + 25) = 0$$

$$\text{Sol: } x = \frac{5}{2}, \frac{-5 \pm 5i\sqrt{3}}{4} \quad \text{Q.F.}$$

$$8. \text{ FF: } (2x^2 + 5)(x^2 - 2) = 0$$

$$\text{Sol: } x = \pm \frac{i\sqrt{10}}{2}, \pm \sqrt{2}$$

$$9. \text{ FF: } 9(x^2 - 4x - 3) = 0 \quad \text{Q.F.}$$

$$\text{Sol: } x = 2 \pm \sqrt{7} \quad \begin{array}{l} a=1 \quad b=-4 \\ c=-3 \end{array}$$

$$\frac{4 \pm \sqrt{16 - 4(1)(-3)}}{2}$$

$$\frac{4 \pm \sqrt{28}}{2}$$

$$\frac{4 \pm 2\sqrt{7}}{2} = 2 \pm \sqrt{7}$$

$$10. \text{ FF: } -11(x^2 - 6)(x^2 + 6) = 0$$

$$\text{Sol: } x = \pm i\sqrt{6}, \pm \sqrt{6}$$

$$11. \text{ FF: } 2(x^2 + 8)(x + 12) = 0$$

$$\text{Sol: } x = \pm 2i\sqrt{2}, -12$$

$$12. \text{ FF: } 4x^2(x^2 + 16x + 32) = 0$$

$$\text{Sol: } x = -8 \pm 4\sqrt{2}, 0 \text{ w/ mult of 2}$$

