

R2.4

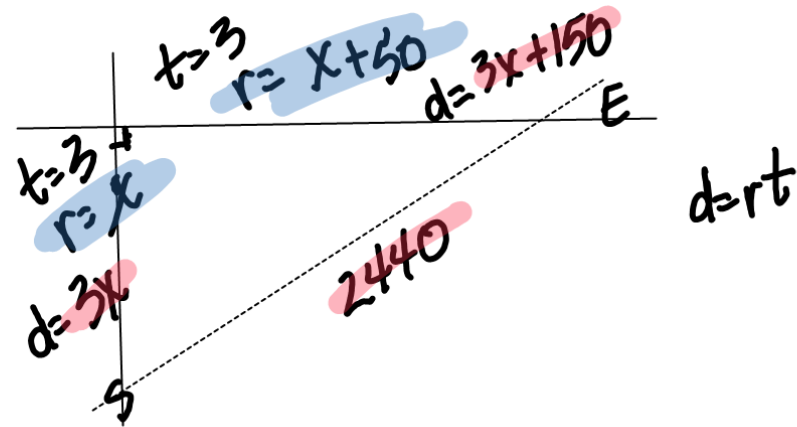
b5c

$$885 = .3164(16)^2 + 33.601(16) + 281.05$$

$$885 \neq 899$$

$$.3164t^2 + 33.601t - 603.95 = 0$$

$$t = \frac{-33.601 \pm \sqrt{(33.601)^2 - 4(.3164)(-603.95)}}{2(.3164)}$$



$$(3x)^2 + (3x+150)^2 = 2440^2$$

$$9x^2 + 9x^2 + 900x + 22500 = 5,953,600$$

$$18x^2 + 900x - 5,931,100 = 0$$

6l. $s = -16t^2 + 10t + s_0$

$$0 = -16t^2 + 27t + 6$$

$t = 1.886 \text{ sec}$

R2.5 Solve

$$\text{Set } = 0 \quad x^3 - 22x^2 + 121x = 0$$

$$\text{GCF} \quad x(x^2 - 22x + 121) = 0$$

$$\text{Get factors} = 0 \quad x(x - 11)(x - 11) = 0$$

$$x = 0 \quad x - 11 = 0 \quad x - 11 = 0$$

$$x = 0 \quad x = 11 \quad \text{DR}$$

$$x^4 - 81 = 0$$

$$(x^2 + 9)(x^2 - 9) = 0$$

$$(x^2 + 9)(x + 3)(x - 3) = 0$$

$$\cancel{x^2 + 9 = 0} \quad x + 3 = 0 \quad x - 3 = 0$$

$$\cancel{\sqrt{x^2} = \sqrt{9}} \quad x = -3 \quad x = 3$$

$$\sqrt[4]{x^4} = \sqrt[4]{81}$$

$$x = \pm 3$$

$$x^3 + 2x^2 + 3x + 6 = 0$$

$$(x + 2)(x^2 + 3) = 0$$

$$x + 2 = 0 \quad x^2 + 3 = 0$$

$$x = -2 \quad \sqrt{x^2} = \sqrt{-3}$$

$$\sqrt{x-10} - 4 = 0$$

$$(\sqrt{x-10})^2 = (4)^2$$

$$x-10 = 16$$

$$x = 26$$

$$21. \quad 2\sqrt{x} + 9\sqrt{x} - 5 = 0$$

$$(\sqrt{x} - 1)(\sqrt{x} + 5) = 0$$

$$2\sqrt{x} - 1 = 0 \quad \sqrt{x} + 5 = 0$$

$$\frac{2\sqrt{x}}{2} = \frac{1}{2} \quad (\sqrt{x})^2 = (-5)^2$$

$$(\sqrt{x})^2 = \left(\frac{1}{2}\right)^2$$

$$x = \frac{1}{4} \quad x = 25$$

$$10 + 45 - 5 = 0$$

$$\frac{1}{2} + \frac{9}{2} - 5 = 0$$

$$\left((x-5)^{\frac{2}{3}}\right)^{\frac{3}{2}} = (16)^{\frac{3}{2}}$$

$$x-5 = (\sqrt[3]{16})^3$$

$$x-5 = 4^3$$

$$x-5 = 64$$

$$x = 69$$