

4.1 HW

$$15.) \frac{1}{2}x^2 + 3x + C$$

$$18.) x^4 + 2x^3 - x + C$$

$$20.) \frac{1}{4}x^4 - 2x^2 + 2x + C$$

$$21.) \frac{2}{5}x^{5/2} + x^2 + x + C$$

$$23.) \frac{3}{5}x^{5/3} + C$$

$$26.) -\frac{1}{3x^3} + C$$

27) separate into individual terms. (hint)

$$\frac{2}{5}x^{5/2} + \frac{2}{3}x^{3/2} + 2x^{1/2} + C$$

$$28.) -\frac{1}{x} - \frac{1}{x^2} + \frac{1}{x^3} + C$$

$$31.) \frac{2}{7}y^{7/2} + C$$

$$34.) 3t + C$$

$$35.) -2\cos x + 3\sin x + C$$

$$40.) \sec y - \tan y + C$$

$$41.) \tan y + C$$

$$55.) f(x) = 2x^2 + 6$$

$$58.) f(s) = 3s^2 - 2s^4 + 23$$

$$59.) f(x) = x^2 + x + 4$$

$$60.) f(x) = \frac{1}{12}x^4 + 6x + 3$$

$$62.) -\sin x + 2x + 6$$

$$67.) s(t) = -16t^2 + 60t + 6$$

$$v(t) = 0 \text{ at } t = 1.875$$

$$\Rightarrow s(1.875) = \boxed{62.25 \text{ ft}}$$

$$73.) s(t) = -4.9t^2 + 10t + 2$$

$$v(t) = 0 \text{ at } t = 1.02$$

$$s(1.02) = \boxed{7.1 \text{ m}}$$