

SECTION 13.4 (SOLUTIONS TO EVEN PROBLEMS)

16.

$$\vec{a}(t) = \sin t \mathbf{i} + 2 \cos t \mathbf{j} + 6t \mathbf{k}$$

$$\vec{v}(t) = \int \vec{a}(t) dt \dots$$

$$\vec{v}(t) = (1 - \cos t) \mathbf{i} + 2 \sin t \mathbf{j} + (3t^2 - 1) \mathbf{k}.$$

$$18. (a) \vec{v}(t) = \frac{t^2}{2} \mathbf{i} + (e^t - 1) \mathbf{j} + (2 - e^{-t}) \mathbf{k}$$

$$\vec{r}(t) = \frac{t^3}{6} \mathbf{i} + (e^t - t) \mathbf{j} + (e^{-t} + 2t) \mathbf{k}.$$