4.6.3 To find $\mathrm{d}x/\mathrm{d}t$, I differentiate both sides, solve for $\mathrm{d}x$, and divide by $\mathrm{d}t$:

$$x^2 + y^2 = 1;$$
$$\mathrm{d}(x^2 + y^2) = \mathrm{d}(1);$$
$$2x\,\mathrm{d}x + 2y\,\mathrm{d}y = 0;$$
$$2x\,\mathrm{d}x = -2y\,\mathrm{d}y;$$
$$\mathrm{d}x = -\frac{y\,\mathrm{d}y}{x};$$
$$\frac{\mathrm{d}x}{\mathrm{d}t} = -\frac{y}{x}\frac{\mathrm{d}y}{\mathrm{d}t}.$$

When $x = -0.6$, $y = 0.8$, and $\mathrm{d}y/\mathrm{d}t = -4$,

$$\frac{\mathrm{d}x}{\mathrm{d}t} = -\frac{y}{x}\frac{\mathrm{d}y}{\mathrm{d}t} = -\frac{0.8}{-0.6}(-4) = -\frac{16}{3}.$$