32. From the figure, we see that $x_0 = -2.0$ m. From Table 2-1, we can apply $x - x_0 = v_0 t + \frac{1}{2}at^2$ with $t = 1.0$ s, and then again with $t = 2.0$ s. This yields two equations for the two unknowns, v_0 and a. SI units are understood.

$$\begin{aligned} 0.0 - (-2.0) &= v_0\,(1.0) + \frac{1}{2}a(1.0)^2 \\ 6.0 - (-2.0) &= v_0\,(2.0) + \frac{1}{2}a(2.0)^2 \quad . \end{aligned}$$

Solving these simultaneous equations yields the results $v_0 = 0.0$ and $a = 4.0$ m/s^2. The fact that the answer is positive tells us that the acceleration vector points in the $+x$ direction.