

- 3 An object oscillates with simple harmonic motion according to the expression:

$$x = 0.160 \sin 15.7t$$

where x is the displacement in metres and t is the time in seconds.

On Fig. 3.1, sketch the variations with time of the displacement x , the velocity v and the acceleration a of the object for two complete oscillations, starting at $t = 0$.

Include an appropriate scale on the time axes.

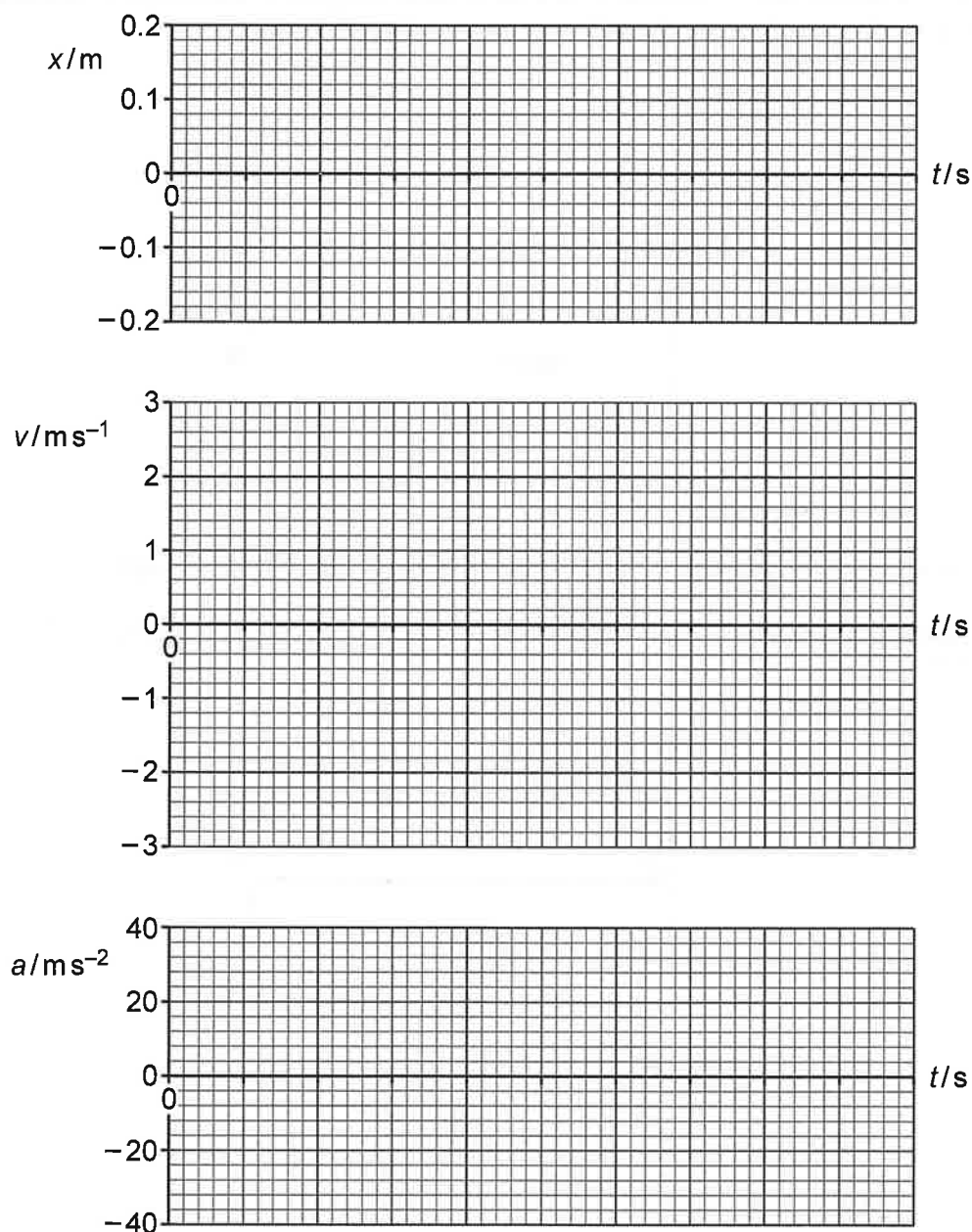


Fig. 3.1