6_ M.C.U.

$$f = 0'8\ s^{-1}$$

a) $f = \frac{1}{T} \rightarrow \boxed{T = 1'25\ s}$

b) $\omega = \frac{2\pi}{T} = 2\pi \cdot f \rightarrow \omega = 2\pi \cdot (0'8\ s^{-1}) = \frac{8}{5}\pi\ rad/s$

$$v = \omega \cdot R = \left(\frac{8}{5}\pi\ rad/s\right) \cdot (0'42\ m) = 0'67\pi\ \frac{m}{s} = 2'11\ m/s$$

c) $\omega = \frac{\Delta\phi}{\Delta t} \rightarrow \Delta\phi = \omega \cdot \Delta t = \left(\frac{8}{5}\pi\ \frac{rad}{s}\right) \cdot (1'54\ s)$

$$\Delta\phi = 2'46\pi\ rad = 7'74\ rad$$

$$7'74\ rad \cdot \frac{360^\circ}{2\pi\ rad} = (443'52)^\circ = 360^\circ + (83'52)^\circ$$

↓

Está a $(83'52)^\circ$ del punto inicial, habiendo dado una vuelta completa.

d) $a_n = \frac{v^2}{R} = \frac{(2'11\ m/s)^2}{(0'42\ m)} = \boxed{10'6\ m/s^2 = a_n}$