



Q41 a) B. (steepest gradient). (biggest amplitude change will happen in same time)

b) @ 5m/s draw in the wave 0.2s later (moves 1m \rightarrow).

look at where B & C have moved to.

B moves up 0.35m in 0.2s $\uparrow v_B = \frac{0.35}{0.2} = 1.75 \text{ m/s}$

C moves down 0.20m in 0.2s $\downarrow v_C = \frac{0.20}{0.2} = 1 \text{ m/s}$.

wait $\frac{2.5 \text{ m}}{5 \text{ m/s}} = 0.5 \text{ s}$ before moving.

c) X would move down first, at same rate as C to a max 0.5m.

then up, at same rate as B to a max 0.2m ^{amplitude.}

then be constant for 0.4s.

then down at $\frac{0.20 \text{ m}}{0.2 \text{ s}} = 1 \text{ m/s}$.

^{amplitude.}
 $\left(\frac{0.7}{1.75} = 0.4 \text{ s} \right)$

