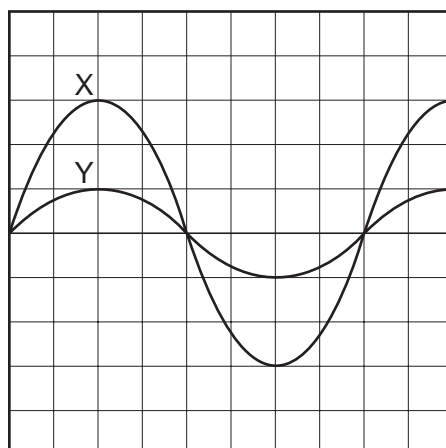4   The diagram shows an oscilloscope screen displaying two signals.

Signal X has a frequency of 50 Hz and peak voltage of 12 V.

What is the period and peak voltage of signal Y?

	period / ms	peak voltage /V
A	20	4
B	20	12
C	50	4
D	50	12

5   On a particular railway, a train driver applies the brake of the train at a yellow signal, a distance of 1.0 km from a red signal, where it stops.

The maximum deceleration of the train is $0.2 \, \text{m s}^{-2}$.

Assuming uniform deceleration, what is the maximum safe speed of the train at the yellow signal?

A $20 \, \text{m s}^{-1}$ B $40 \, \text{m s}^{-1}$ C $200 \, \text{m s}^{-1}$ D $400 \, \text{m s}^{-1}$

Space for working