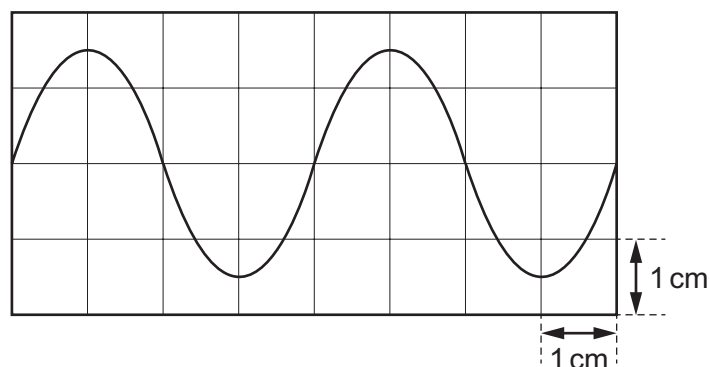


- 4 A cathode-ray oscilloscope (CRO) is used to display a sound wave of frequency 2000 Hz.

The display of the CRO is shown.



What is the time-base setting on the CRO?

- A** $125 \mu\text{s cm}^{-1}$ **B** $250 \mu\text{s cm}^{-1}$ **C** $500 \mu\text{s cm}^{-1}$ **D** $1000 \mu\text{s cm}^{-1}$
- 5 Four possible sources of error in a series of measurements are listed.
- 1 an analogue meter whose scale is read from different angles
 - 2 a meter which always measures 5% too high
 - 3 a meter with a needle that is not frictionless, so the needle sometimes sticks slightly
 - 4 a meter with a zero error

Which errors are random and which are systematic?

	random error	systematic error
A	1 and 2	3 and 4
B	1 and 3	2 and 4
C	2 and 4	1 and 3
D	3 and 4	1 and 2