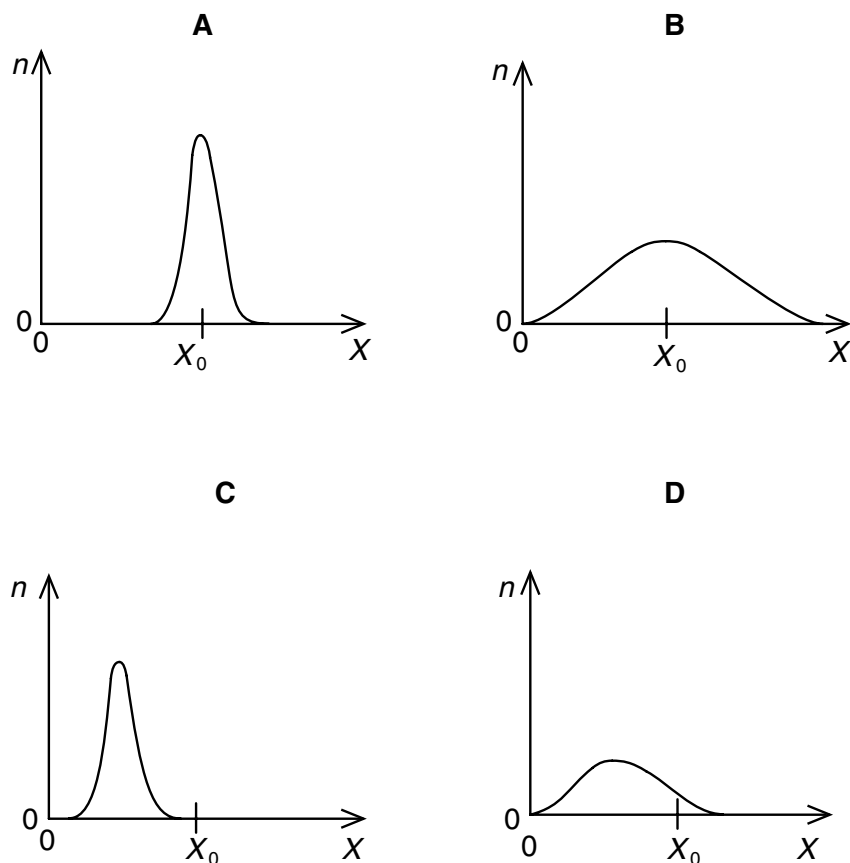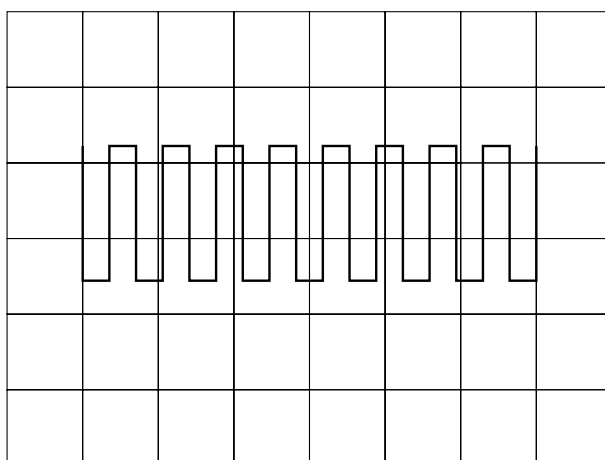**6** A quantity X is measured many times. A graph is plotted showing the number n of times a particular value of X is obtained. X has a true value X_0.

Which graph could be obtained if the measurement of X has a large systematic error but a small random error?

A

B

C

D

7 The diagram shows a square-wave trace on the screen of a cathode-ray oscilloscope. A grid of 1 cm squares covers the screen. The time-base setting is $10\,\text{ms}\,\text{cm}^{-1}$.

What is the approximate frequency of the square-wave?

A 70 Hz   **B** 140 Hz   **C** 280 Hz   **D** 1400 Hz