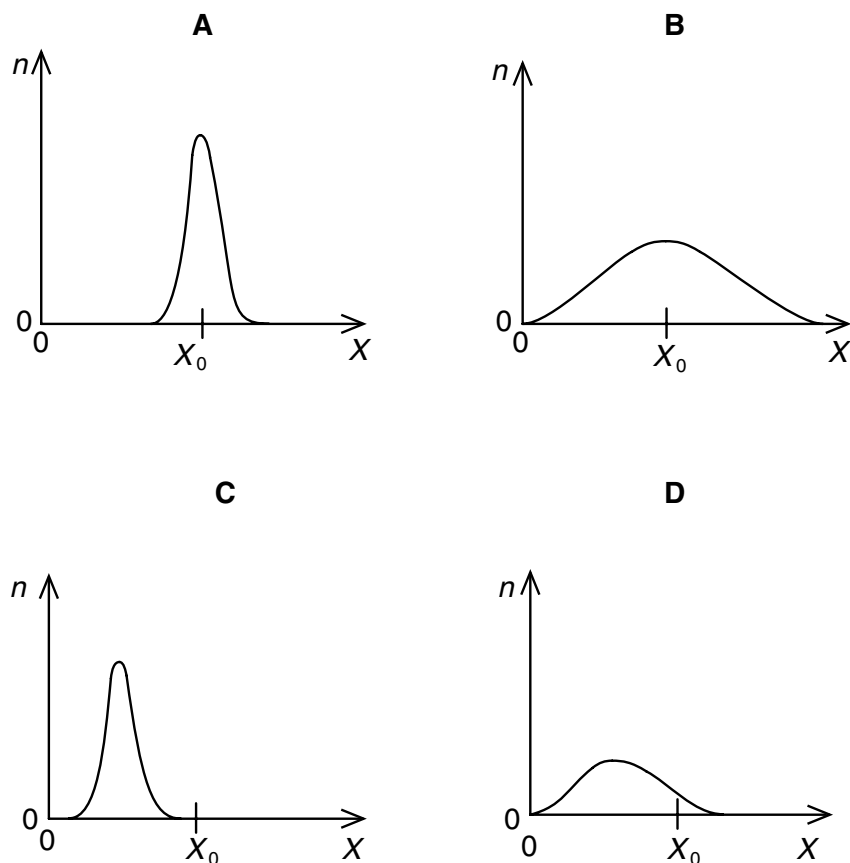
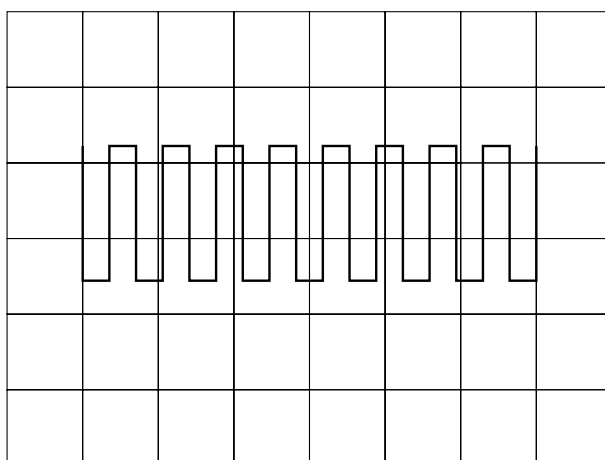


- 6 A quantity  $X$  is measured many times. A graph is plotted showing the number  $n$  of times a particular value of  $X$  is obtained.  $X$  has a true value  $X_0$ .

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



- 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  $10 \text{ ms cm}^{-1}$ .



What is the approximate frequency of the square-wave?

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