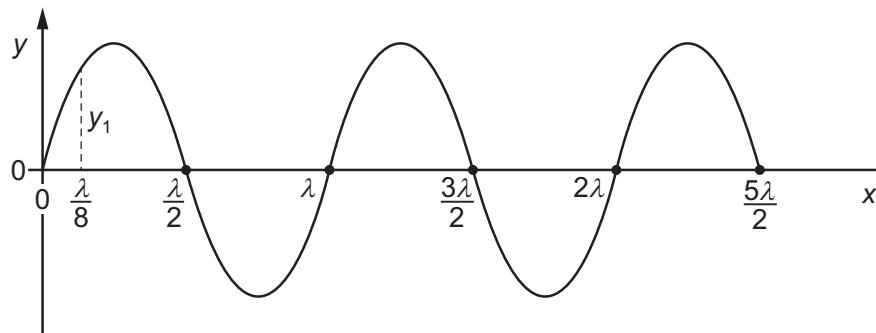


- 22 A transverse progressive wave of wavelength  $\lambda$  is set up on a stretched string. The graph shows the variation of displacement  $y$  with distance  $x$  at a particular instant of time. The wave has displacement  $+y_1$  at distance  $x = \frac{\lambda}{8}$ .



What are the next two values of  $x$  where the displacement  $y$  is again equal to  $+y_1$ ?

- A  $\frac{3\lambda}{8}$  and  $\frac{5\lambda}{8}$
- B  $\frac{3\lambda}{8}$  and  $\frac{9\lambda}{8}$
- C  $\frac{5\lambda}{8}$  and  $\frac{9\lambda}{8}$
- D  $\frac{9\lambda}{8}$  and  $\frac{17\lambda}{8}$