

- 7 (a) Find the possible values of  $x$  for which  $\sin^{-1}(x^2 - 1) = \frac{1}{3}\pi$ , giving your answers correct to 3 decimal places. [3]
- (b) Solve the equation  $\sin(2\theta + \frac{1}{3}\pi) = \frac{1}{2}$  for  $0 \leq \theta \leq \pi$ , giving  $\theta$  in terms of  $\pi$  in your answers. [4]