3. (a) Solve, for $0 \leqslant \theta < 2\pi$,

$$\sin\left(\frac{\pi}{3} - \theta\right) = \frac{1}{\sqrt{3}}\cos\theta \ .$$

(5)

(b) Find the value of x for which

$$\arcsin(1 - 2x) = \frac{\pi}{3} - \arcsin x, \qquad 0 < x < 0.5$$

[$\arcsin x$ is an alternative notation for $\sin^{-1} x$]

(7)