7 **(a)** Express $7\sin\theta + 24\cos\theta$ in the form $R\cos(\theta - \alpha)$, where $R > 0$ and $0 < \alpha < \frac{1}{2}\pi$. Give the value of α correct to 4 decimal places. [3]

(b) Hence solve the equation $7\sin\frac{1}{3}x + 24\cos\frac{1}{3}x = 24.5$ for $0 < x < \pi$. [4]