

- 6.** (a) Express $2 \cos x^\circ - 3 \sin x^\circ$ in the form $k \cos(x + a)^\circ$ where $k > 0$ and $0 \leq a < 360$. **4**
- (b) Hence solve $2 \cos x^\circ - 3 \sin x^\circ = 3$ for $0 \leq x < 360$. **3**