(a) Express $7\cos x° - 3\sin x°$ in the form $k\sin(x+a)°$ where $k > 0$, $0 < a < 360$.   **4**

(b) Hence, or otherwise, find:

    (i) the maximum value of $14\cos x° - 6\sin x°$ **1**

    (ii) the value of x for which it occurs where $0 \le x < 360$.   **2**

Answers:

    (a) $\sqrt{58}\sin(x+113.19\ldots)°$

  (b) (i) $2\sqrt{58}$

     (ii) $x = 336.8$