**4** The graph of $y = a + 2\tan bx$, where $a$ and $b$ are constants, passes through the point $(0, -4)$ and has period 480°.

**(a)** Find the value of $a$ and of $b$. [3]

**(b)** On the axes, sketch the graph of $y$ for values of $x$ between 0° and 480°. [2]

