3 The curve C has equation $y = 2x\sqrt{x}(x-2)$.

(a) Find $\frac{dy}{dx}$. **[4]**

(b) The point $P(4, 32)$ lies on C.

Find an equation for the tangent to C at P. Give your answer in the form $ax+by+c=0$, where a, b and c are integers. **[3]**