5 A cube of side x cm has surface area $S\,\text{cm}^2$. The volume, $V\,\text{cm}^3$, of the cube is increasing at a rate of $480\,\text{cm}^3\text{s}^{-1}$. Find, at the instant when $V = 512$,

(a) the rate of increase of x, [4]

(b) the rate of increase of S. [2]