Nobody Escapes the Cube

We are designing a computer graphic in which we zoom in on a cube. The volume V, surface area S, and side length x of the cube are all varying with respect to time. With this information, compute the following quantities, using the steps described in the text:

1. dS/dt when $x = 2$ inches and $dV/dt = 1$ in^3/s.

2. dV/dt when $x = 2$ inches and $dS/dt = 1$ in^2/s.