(a) The radius r of the balloon is increasing at a rate of 8 cm/s, so $r(t) = $ (8 cm/s)(t s) $= 8t$ (in cm).

(b) Using $V = \frac{4}{3}\pi r^3$, we get $(V \circ r)(t) = V(r(t)) = V(8t) = \frac{4}{3}\pi(8t)^3$. The result, $V = \frac{4}{3}\pi(8t)^3$, gives the volume of the balloon (in cm^3) as a function of time (in s).