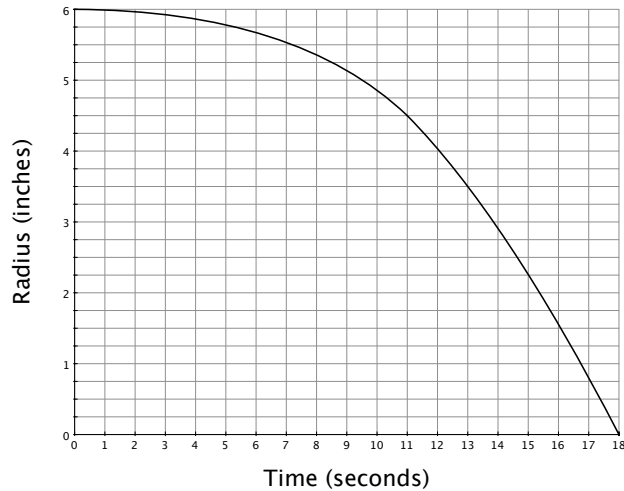


Intro to Calculus

The Leaky Balloon

A spherical balloon is leaking. Below is a graph of the radius, r , as a function of time, t .

1. Do you think that the graph shown is a reasonable one for this situation? Explain.



2. How fast is the radius changing when $t = 15$?

3. How fast is the radius changing when the radius is 4 inches?

4. Create a graph of the volume as a function of time over the same time interval. (Recall that the volume of a sphere is given by the equation $V = \frac{4\pi r^3}{3}$.)

