

1. a) $\frac{d}{dx}(x^2 + x + 1) =$

b) $\frac{d}{dx}(\sqrt[3]{x^2}) =$

c) $\frac{d}{dx}\left(\frac{1}{x^3} - 2\right) =$

d) $\frac{d}{dx}(-1000) =$

e) $\frac{d}{dx}(x^{1.4}) =$

f) $\frac{d}{dx}(2x^{27}) =$

g) $\frac{d}{dx}\left(-\frac{3}{x^2}\right) =$

2. Suppose a company makes the following revenue (in millions of dollars t years after 2002):

$$R(t) = 0.4\sqrt{t} + 2$$

a) At what rate is the revenue growing with respect to time in 2007?

b) At what percentage rate is the revenue growing with respect to time in 2007?

Q: What goes around the world but stays in a corner?