





$$(5) \quad f(x) = x^{1/3} + 1$$

$$f'(x) = \frac{1}{3} x^{-2/3}$$

$$0 = \frac{1}{3} x^{-2/3}$$

$$0 = x^{-2/3}$$

$$0 = \frac{1}{x^{2/3}}$$

$$0 = \frac{1}{a}$$

$f'(x)$ undefined $x=0$

$(-\infty, 0)$ increasing

$(0, \infty)$ decreasing

$$0 = 4x^3 - 32$$

$$4$$

$$0 = x^3 - 8$$

$$8 = x^3$$

$$x = 2$$

p.146 #16

$$\frac{dr}{dt} = 2 \quad \frac{dV}{dt}$$

$$V = \frac{4}{3} \pi r^3$$

$$\frac{dV}{dt} = 4\pi r^2 \frac{dr}{dt}$$