

RECAP

DAY 11
25 FEB 22

$f'(a)$ is the slope of the tangent line to $f(x)$ at $x = a$.

$f'(x)$ gives a formula for this:

If $f(x)$ is given: $f'(x) = \frac{d}{dx} f(x)$.

In class, we showed $\frac{d}{dx} (x^2) = 2x$

If $f(t)$ is the distance travelled at time t , $f'(t)$ is the velocity, and $f''(t)$ is the acceleration.

Negative exponents and roots:

$$x^{-n} = \frac{1}{x^n}$$

$$\frac{1}{x^{-n}} = x^n$$

$$\sqrt[n]{x} = x^{\frac{1}{n}}$$

$$\sqrt[n]{x^a} = x^{\frac{a}{n}}$$

$$\frac{1}{\sqrt[n]{x}} = x^{-\frac{1}{n}}$$

$$\frac{1}{\sqrt[n]{x^a}} = x^{-\frac{a}{n}}$$