Differentiation

times then minus

$$y=3x^4+5x-2$$

$$\frac{dy}{dx}=12x^3+5$$

 $\frac{dy}{dx}$ is the tangent's gradient

For the normal: flip and minus

Integration

Add then divide (don't forget to plus c!)

$$\frac{dy}{dx} = 12x^3 + 5$$
$$y = 3x^4 + 5x + c$$