

$$1. \frac{d}{dx} (\sqrt{x}) = \frac{1}{2\sqrt{x}}$$

$$2. \frac{d}{dx} \left(\frac{1}{x^3} \right) = \frac{-3}{x^4}$$

$$3. \frac{d}{dx} (\sqrt{ax+b}) = \frac{a}{2\sqrt{ax+b}}$$

$$4. \frac{d}{dx} \left(\frac{ax+b}{cx+d} \right) = \frac{ad-bc}{(cx+d)^2}$$

$$5. \frac{d}{dx} (ax+b)^n = n.(ax+b)^{n-1}.a$$