

Derivatives

Basic

Power Rule

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

2. $\frac{d}{dx}(x^3)$

3. $\frac{d}{dx}(x^{-1})$

4. $\frac{d}{dx}(\sqrt{x})$

5. $\frac{d}{dx}\left(x^{\frac{1}{4}}\right)$

6. $\frac{d}{dx}(x^5)$

7. $\frac{d}{dx}(x^{-2})$

8. $\frac{d}{dx}\left(x^{\frac{2}{3}}\right)$

9. $\frac{d}{dv}(v^5)$

10. $\frac{d}{dv}\left(v^{-\frac{1}{3}}\right)$

Answers**Derivatives****Basic****Power Rule**

1. $2x$

2. $3x^2$

3. $-\frac{1}{x^2}$

4. $\frac{1}{2\sqrt{x}}$

5. $\frac{1}{4x^{\frac{3}{4}}}$

6. $5x^4$

7. $-\frac{2}{x^3}$

8. $\frac{2}{3x^{\frac{1}{3}}}$

9. $5v^4$

10. $-\frac{1}{3v^{\frac{4}{3}}}$