

Introduction to Calculus

Power Rule for Differentiation

Worksheet 1

Answer Key

Exercise 1

1. $f'(x) = 20x^4$

2. $\frac{dy}{dx} = 6x$

3. $f'(x) = 63x^6$

4. $\frac{dy}{dx} = 10$

5. $f'(x) = 2x^3$

6. $\frac{dy}{dx} = 4x^9$

7. $f'(x) = 2$

8. $\frac{dy}{dx} = 1$

Exercise 2

1. $f'(x) = 8x + 3$

2. $\frac{dy}{dx} = 27x^2 - 4$

3. $f'(x) = 4x^7 + 7x^6 - 5$

4. $\frac{dy}{dx} = 18x^2 - 4x + 1$

5. $f'(x) = -5 + 6x$

6. $\frac{dy}{dx} = \frac{1}{2}$