



## Basic Derivatives - Negative Integer Power to Derivative

1 Find the derivative  $f'(x)$  using the power rule.

$$f(x) = x^{-2}$$

- |   |                    |   |                    |
|---|--------------------|---|--------------------|
| A | $f'(x) = x^{-3}$   | B | $f'(x) = -2x^{-2}$ |
| C | $f'(x) = -2x^{-1}$ | D | $f'(x) = -2x^{-3}$ |

2 Find the derivative  $f'(x)$  using the power rule.

$$f(x) = x^{-5}$$

- |   |                    |   |                    |
|---|--------------------|---|--------------------|
| A | $f'(x) = -5x^{-6}$ | B | $f'(x) = -5x^{-4}$ |
| C | $f'(x) = -5x^{-5}$ | D | $f'(x) = x^{-6}$   |

3 Find the derivative  $f'(x)$  using the power rule.

$$f(x) = x^{-4}$$

- |   |                    |   |                    |
|---|--------------------|---|--------------------|
| A | $f'(x) = -4x^{-4}$ | B | $f'(x) = x^{-5}$   |
| C | $f'(x) = -4x^{-3}$ | D | $f'(x) = -4x^{-5}$ |

4 Find the derivative  $f'(x)$  using the power rule.

$$f(x) = x^{-3}$$

- |   |                    |   |                    |
|---|--------------------|---|--------------------|
| A | $f'(x) = -3x^{-4}$ | B | $f'(x) = x^{-4}$   |
| C | $f'(x) = -3x^{-3}$ | D | $f'(x) = -3x^{-2}$ |

5 Find the derivative  $f'(x)$  using the power rule.

$$f(x) = x^{-1}$$

- |   |                   |   |                   |
|---|-------------------|---|-------------------|
| A | $f'(x) = -x^{-2}$ | B | $f'(x) = -1$      |
| C | $f'(x) = x^{-2}$  | D | $f'(x) = -x^{-1}$ |