

1. What is the derivative of $f(x) = x^3 + 7x^2 - 8x + 6$?

- A) $3x^2 + 14x - 8$
- B) $2x^2 + 14x - 8$
- C) $3x^2 + 7x - 8$
- D) $4x^2 + 14x - 8$

2. What is the derivative of \sqrt{x} ?

- A) $(1/2)x^{(-1/2)}$
- B) $(1/2)x^{(1/2)}$
- C) $(1/2)x$
- D) $(1/2)x^{(-2)}$

3. What is the derivative of $d/dx (\sin x)$?

- A) $\cos x$
- B) $-\sin x$
- C) $\sec^2 x$
- D) $-\csc^2 x$

4. What is the formula for the Quotient Rule?

- A) $d/dx [f/g] = [g \cdot f' - f \cdot g'] / g^2$
- B) $d/dx [f/g] = [f \cdot g' - g \cdot f'] / f^2$
- C) $d/dx [f/g] = [f \cdot g + g \cdot f'] / g^2$
- D) $d/dx [f/g] = [g \cdot f + f \cdot g'] / g^2$

5. What is the derivative of $(2x - 3)^2$ after expanding?

- A) $8x - 12$

B) $4x - 12$

C) $4x + 12$

D) $8x + 12$