

1. Let $f(x) = x^3 - 3x^2 - 72x$.

Q1 Find $f'(x)$.

Q2 Solve $f'(x) = 0$.

Q3 Find $f''(x)$.

Q4 Find $f'(-1)$.

2. Let $f(x) = -x^3 - 6x^2 - 12x$.

Q1 Find $f'(x)$.

Q2 Solve $f'(x) = 0$.

Q3 Find $f''(x)$.

Q4 Find $f'(5)$.

3. Let $f(x) = x^3 + 9x^2 + 24x$.

Q1 Find $f'(x)$.

Q2 Solve $f'(x) = 0$.

Q3 Find $f''(x)$.

Q4 Find $f'(-6)$.