

DIFFERENTIATION BY THE FIRST PRINCIPLE

CANSU OLCE

A STAR MATHS (www.astarmaths.com.au)

1. Find the derivative of $f(x) = 3x$, using differentiation from first principles.
2. Find the derivative of $f(x) = 5x^2 - 4$, using differentiation from first principles.
3. Find the derivative of $f(x) = 3x^2 - 2x$, using differentiation from first principles.
4. Find the derivative of $f(x) = x^2 + 6x + 9$, using differentiation from first principles.
5. Find the derivative of $f(x) = 2x^2 - \frac{1}{x}$, using differentiation from first principles.
6. Find the derivative of $f(x) = 10$, using differentiation from first principles.
7. Find the derivative of $f(x) = 2x + 3x^2$ using differentiation from first principles.
8. Find the derivative of $f(x) = x^3 - x$, using differentiation from first principles.
9. Find the derivative of $f(x) = -2x^2 - 5x$, using differentiation from first principles.
10. Find the derivative of $f(x) = \ln x$, using differentiation from first principles.