

NICKS & TRICKS

LC OL- Functions!

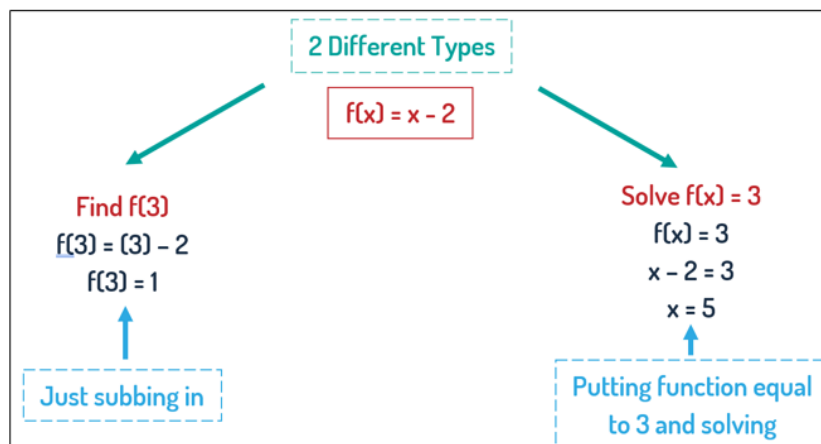
REMEMBER:

1. Functions are all about



Every input **must**
have **1 and only 1**
output!!!!

2. **Spot** the difference



Worked Example

Find the co-ordinates of the turning point of the function $f(x) = -x^2 + 6x - 4, x \in \mathbb{R}$.

$$f(x) = -x^2 + 6x - 4$$

$$f'(x) = -2x + 6 = 0$$

$$\Rightarrow -2x = -6$$

$$\Rightarrow x = 3$$

$$f(3) = -3^2 + 6(3) - 4 = 5$$

$$(3, 5)$$

2021 & 2014 – 2 Questions – 15 mins!

The function f is defined as $f: x \rightarrow x^3 + 3x^2 - 9x + 5$, where $x \in \mathbb{R}$. Find the co-ordinates of the point where the graph of f cuts the y -axis.



Let "Something" = 0

The function, f is defined as $f(x) = 3x^2 - 6x + 7$, where $x \in \mathbb{R}$. Find $f(0.67)$ correct to 2 decimal places.