

- Show that $f(x) = x^3 + 3x - 7$ has at least one real zero between 1 and 2.

SINCE $\underbrace{f(1) = -3}_{\text{NEGATIVE}}$ AND $\underbrace{f(2) = 7}_{\text{POSITIVE}}$,

$f(x)$ MUST BE EQUAL TO ZERO SOMEWHERE
BETWEEN 1 & 2.