

30. $f(x) = x^3 - 15x + 1$ is continuous everywhere.

$$f(-4) = -3, \quad f(-3) = 19, \quad f(1) = -13, \quad f(4) = 5.$$

Because of the sign changes f has a zero between -4 and -3 , another zero between -3 and 1 , and another between 1 and 4 .