- Apply Descartes' rules of signs: $g(x) = x^3 + 2x^2 - 5x - 6$

PART 1: ONE SIGN CHANGE BETWEEN COEFFICIENTS

$\Rightarrow$ THE NUMBER OF POSITIVE REAL ZEROS IS 1.

PART 2: $-x^3 + 2x^2 + 5x - 6$

TWO SIGN CHANGES $\Rightarrow$ THE NUMBER OF NEGATIVE REAL ZEROS IS 2 OR 0.

IN FACT, THERE ARE EXACTLY THREE ZEROS AND THEY ARE

$x = 2, \quad x = -3, \quad x = -1$