

Answer on Question #70882 – Math – Algebra

Question

Which of the following expresses the possible number of positive real solutions for the polynomial equation shown below?

$$x^3 - 4x^2 - 7x + 28 = 0$$

Solution

Construct a row of coefficients of this polynomial: $\{+1; -4; -7; 28\}$. According to Descartes' theorem of Signs, we need to count the number of sign changes.

We get two sign changes, namely, $+ -$ and $- +$.

Therefore, the polynomial has two or none positive roots.

Answer: two or zero positive roots.