

solve

$$x^4 + 12x^3 + 2x^2 + 25 = 0$$

Results

More digits



☒ Step-by-step solution

$$x \approx -11.816$$

$$x \approx -1.3969$$

$$x \approx 0.60624 - 1.07104i$$

$$x \approx 0.60624 + 1.07104i$$

Wolfram|Alpha Step-by-step solution



Result:

STEP 1

Solve for x :

$$x^4 + 12x^3 + 2x^2 + 25 = 0$$

Hint: Look for a simple substitution that eliminates the cubic term of $x^4 + 12x^3 + 2x^2 + 25$.

Eliminate the cubic term by substituting $x = x + 3$:

$$25 + 2(x - 3)^2 + 12(x - 3)^3 + (x - 3)^4 = 0$$