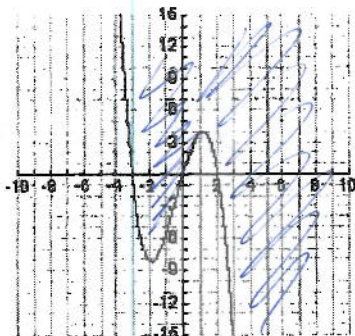


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Name _____

Practice: Solving Polynomial inequalities using the related graph. *check solutions Algebraica*

4. Look at the graph of $f(x) = -x^3 - x^2 + 6x$ below.

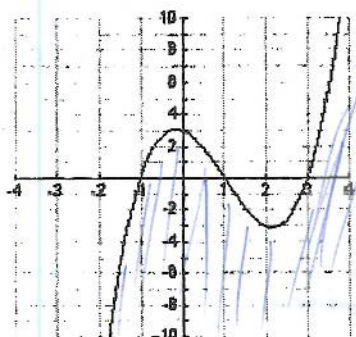


$$-3 \leq x \leq 0 \cup x \geq 2$$

$x = 1$
 $-1 - 1 + 6 \leq 0$
 $4 \leq 0$ False

What are the solutions to the inequality $-x^3 - x^2 + 6x \leq 0$?

5. Look at the graph of $f(x) = x^3 - 3x^2 - x + 3$?

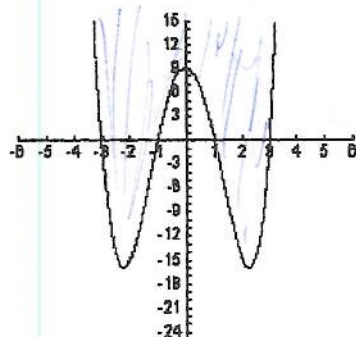


$$-1 \leq x \leq 1 \cup x \geq 3$$

$x = 0$
 $3 \geq 0$

What are the solutions to the inequality $x^3 - 3x^2 - x + 3 \geq 0$?

6. Look at the graph of $f(x) = x^4 - 10x^2 + 9$ below.



$$-3 \leq x \leq -1 \cup 1 \leq x \leq 3$$

$x = 0$
 $9 \leq 0$

What are the solutions to the inequality $x^4 - 10x^2 + 9 \leq 0$?