IN THIS STEP WE FIND THE CONCAVITY OF THE GRAPH.

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HERE WE FIND THE INFLECTION POINTS AND WHERE THE GRAPH CONCAVES UP AND DOWN.

-TO FIND THE INFLECTION POINTS OF THE GRAPH WE NEED TO SOLVE FOR

F(X)'' = 0;

-NEXT WE FIND WHERE THE GRAPH IS CONCAVE UP AND DOWN ----->

-IF THE F(X)'' > 0 THEN THERE IS A CONCAVE UP

-IF THE F(X)'' < 0 THEN THERE IS A CONCAVE DOWN

$f''(x) = 6x - 12 = 6(x-2)$

$f''(x) = 0 \Rightarrow x = 2, \quad f(2) = 8 - 24 + 18 + 1 = 3$

x		2	
$f(x)$	$\cap$	3	$\cup$
$f''(x)$	-	0	+

(2,3) is a point of inflection.