

$$P(x) = -x^5 - x^4 + 10x^3 + 10x^2 - 9x - 9$$

$$= (x+1)^2(x+3)(x-3)(x-1)$$

because it has zeros at  $-1$   $3$   $1$  Mult. 2

Find a few more points on graph

	-1	-1	10	10	-9	-9	$\rightarrow \infty$
-4	-1	3	-2	18	-81	315	$\leftarrow \infty$
-2	-1	1	8	-6	3	<b>-15</b>	
2	-1	3	4	18	27	45	
4	-1	5	-10	30	-129	-528	$\rightarrow \infty$

$\rightarrow \infty$

to cal  
max. somewhere  
in here

AT A  
Double  
zero  
GRAPH  
TANGENT  
X-AXIS

$(-3, -9)$

$(3, 5)$

$\rightarrow \infty$

