PROBLEM #1

Calc. the gradient of a linear function which has the points

$(8,6)$, $(2,0)$

$f(x) = mx + b$

$0 = m(2) + b$

$6 = m(8) + b$

$6 = m(6)$, substituting $m(2) = -b$ from eq. 1.

$m = 6/6$

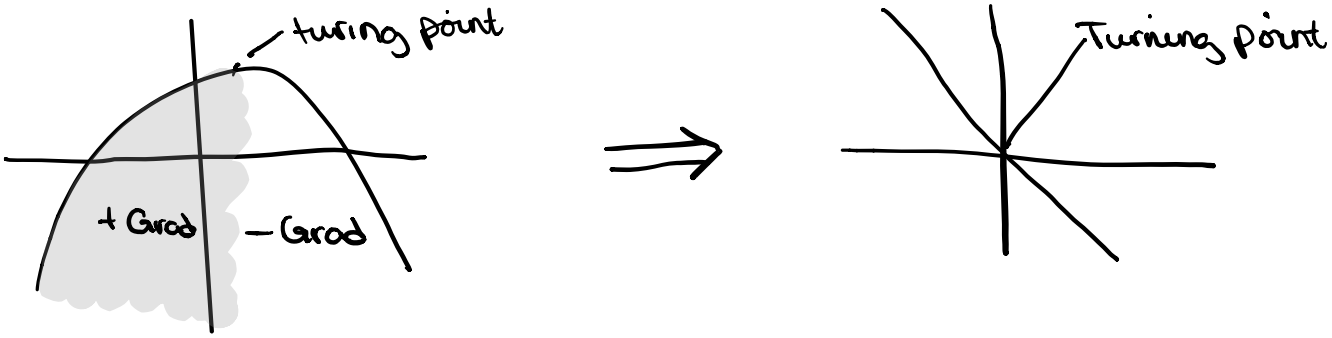
Therefor the gradient is 1.

$(8-2)1 + 0 = 6$, the y-val of $(8,6)$.

□.

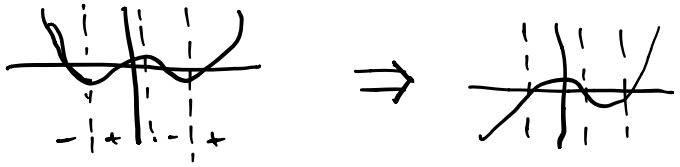
PROBLEM #2.

Given the function $f(x) = -x^2 + 8$, plot the gradient of this function.



PROBLEM #3.

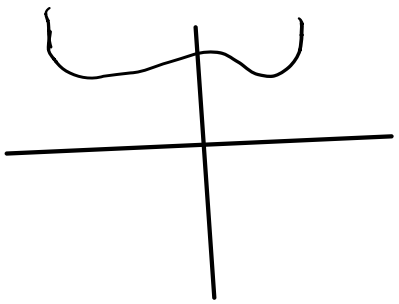
Plot the derivative of this function.

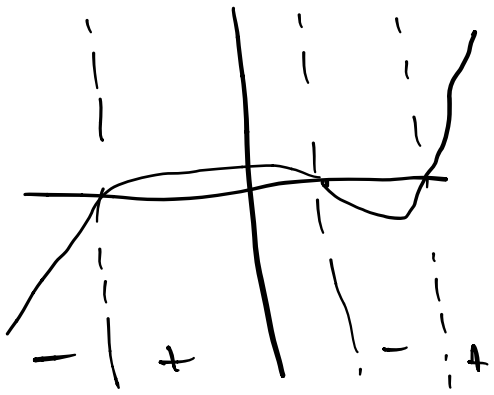


PROBLEM # 4.

Do vertical shifts in a function affect its derivative?

No.





PROBLEM # 5.

Draw a antiderivative of (generalized)
no y offset

constant rate of change.