

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.

$$m = 6/6$$

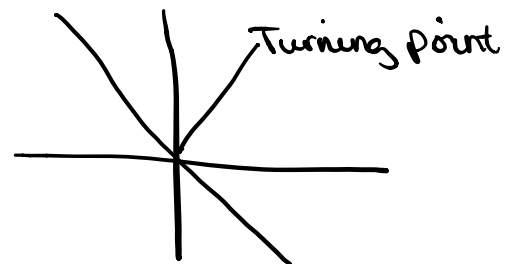
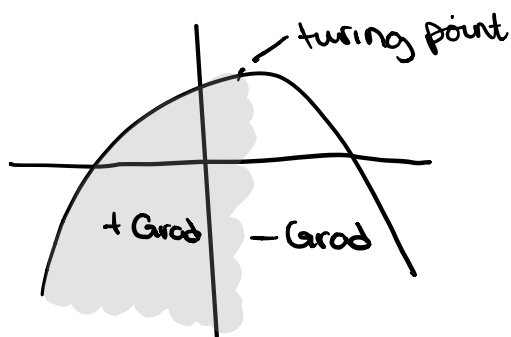
Therefore the gradient is 1.

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

□.

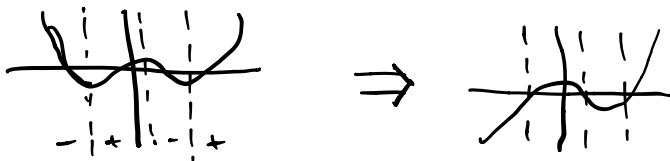
PROBLEM #2.

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



PROBLEM #3.

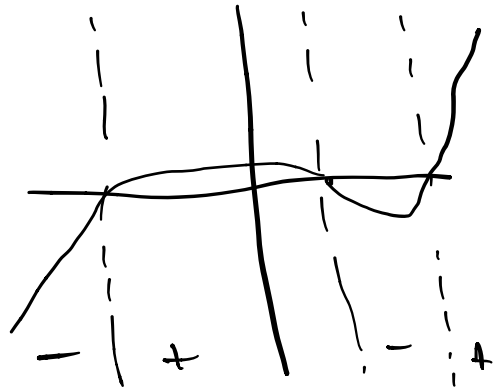
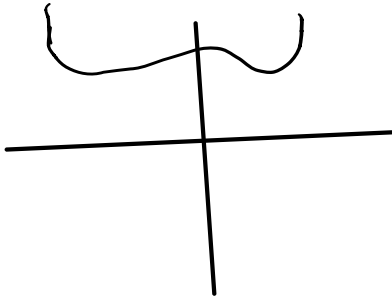
Plot the derivative of this function,



PROBLEM # 4.

Do vertical shifts in a function affect its derivative?

No.



PROBLEM # 5.

Draw an antiderivative of (generalized)
no y offset

