

Cost-Benefit Example

$$B(x) = 4x - x^2$$

$$MB(x) = 4 - 2x$$

$$C(x) = 2x + x^2$$

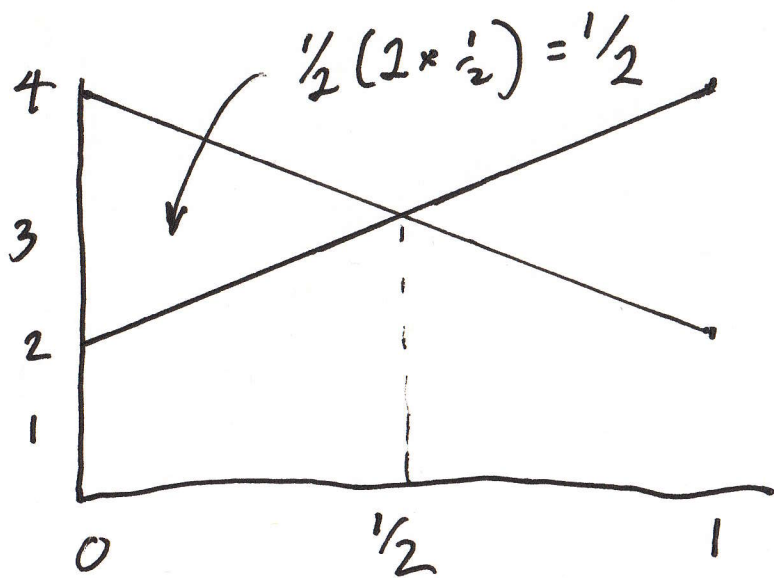
$$MC(x) = 2 + 2x$$

x	$B(x)$	$C(x)$
0	0	0
1	3	3

$$4 - 2x^* = 2 + 2x^*$$

$$2 = 4x^*$$

$$x^* = \frac{1}{2}$$



$$B(\frac{1}{2}) - C(\frac{1}{2}) = 2 - \frac{1}{4} - 1 - \frac{1}{4}$$
$$= \frac{1}{2}$$