Assignment #2 :-

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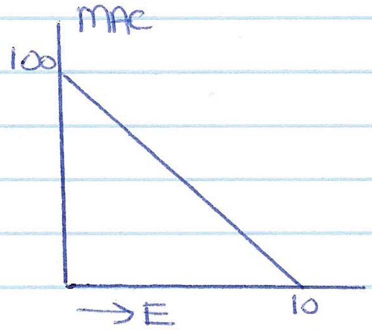
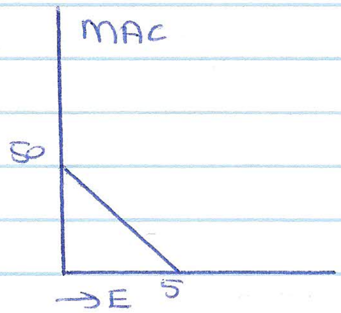
Question #1

$MAC_1 = 100 - 10E$
$MAC_2 = 50 - 10E$

a)





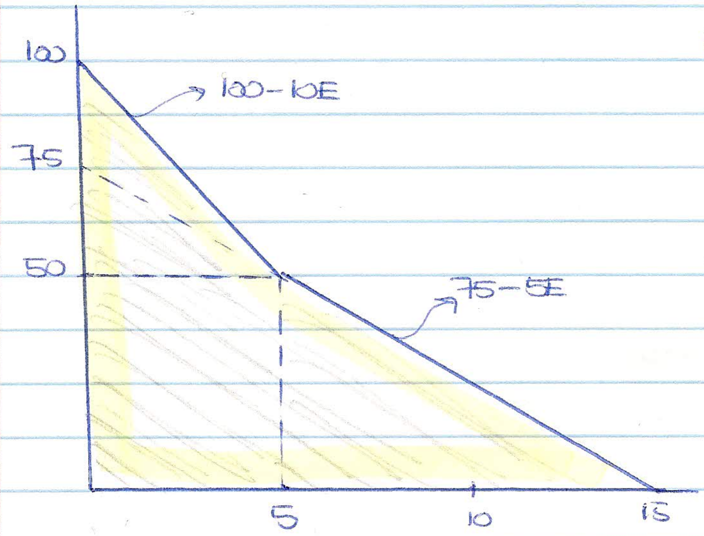
firm 1 :- $MAC = 100 - 10E$
$\boxed{MAC = 100}$
& $0 = 100 - 10E$
$\boxed{E = 10}$

firm 2 :- $MAC = 50 - 10E$
$\boxed{MAC = 50}$
& $0 = 50 - 10E$
$\boxed{E = 5}$

$TAC_1 = 100(10)(\frac{1}{2}) = \$500$ $TAC_2 = 50(5)(\frac{1}{2}) = \$125$

Aggregate TAC = 500 + 125 = \$625

b)



$MAC_1 = 100 - 10E_1$
$10E_1 = 100 - MAC_1$
$E_1 = 10 - 0.1\,MAC_1$

$MAC_2 = 50 - 10E_2$
$10E_2 = 50 - MAC_2$
$E_2 = 5 - 0.1\,MAC_2$

$E_1 + E_2 = E = 15 - 0.2\,MAC$
$5E = 75 - MAC$

$\Rightarrow \boxed{MAC = 75 - 5E}$