Q	FC	VC	TC	AFC	AVC	ATC	MC
8	160	40	200	20	5		
X=16	160	VC_X=136	296		8,5		12
X+4=20	160	200	360			18	16

α) $ATC_{12} = \frac{TC_{12}}{Q_{12}} = ;$

β) $\Delta VC_{18-15} = ; = \Delta V_{18} - VC_{15} = ;$

ΑΣΚ. 5

α)

* $VC_8 = AVC_8 \cdot Q_8 = 5 \cdot 8 = 40$

$VC_X = AVC_X \cdot Q_X = 8,5 \cdot X$ (1)

$MC_{X=12} = \frac{VC_X - 40}{X-8} = \frac{8,5X-40}{X-8} \Rightarrow 12(X-8) = 8,5X-40 \Rightarrow 12X-96 = 8,5X-40$

$\Rightarrow 12X - 8,5X = 56 \Rightarrow X = 16$

* $FC_8 = AFC_8 \cdot Q_8 = 20 \cdot 8 = 160$ Άρα για ∀Q το FC=160

$TC_8 = FC + VC_8 = 160 + 40 = 200$

$VC_{16} = AVC_{16} \cdot Q_{16} = 8,5 \cdot 16 = 136$

$TC_{16} = FC + VC_{16} = 160 + 136 = 296$

$TC_{20} = ATC_{20} \cdot Q_{20} = 18 \cdot 20 = 360$

$VC_{20} = TC_{20} - FC = 360 - 160 = 200$

$MC_{20} = \frac{200-136}{20-16} = 16$

β΄ ερώτ.

Οι 8 μον. κοστίζουν (TC) = 200 €

Οι επόμενες 4 (12-8=4) » $4 \cdot MC_{16} = 4 \cdot 12 = 48$ €

Οι 12 μον. κοστίζουν → 248 € (TC_{12})

Άρα: $ATC_{12} = \frac{TC_{12}}{Q_{12}} = \frac{248}{12} = 20,66$

α΄ ερώτ.

β)

$MC_{16} = \frac{VC_{16} - VC_{15}}{Q_{16} - Q_{15}} \Rightarrow 12 = \frac{136 - VC_{15}}{16-15} \Rightarrow VC_{15} = 124$

$MC_{20} = \frac{VC_{20} - VC_{18}}{Q_{20} - Q_{18}} \Rightarrow 16 = \frac{200 - VC_{18}}{20-18} \Rightarrow VC_{18} = 168$

β΄ ερώτ.

Άρα η μεταβολή του μεταβλητού κόστους είναι:

$\Delta VC = VC_{18} - VC_{15} = 168 - 124 = 44$ μονάδες