Quiz #15   Name: _____Key_____

You must show your work to get full credit.

The total cost of producing q units is $C(q)$ dollars and the revenue brought in by selling q units is $R(q)$. If

$$C(150) = 750, \qquad R(150) = 725, \qquad MC(150) = .75, \qquad MR(150) = .85$$

(1) What are the units of $MC(150) = .75$)?

1 pt

Units are ___$\$/\text{unit}$___

2 pts (2) Estimate the total cost of producing $q = 153$ units.

Total cost of producing 153 units $\approx$ ___$\$752.25$___

$$C(153) \approx C(150) + C'(150)\Delta q$$
$$= 750 + (.75)(3) = 752.25$$

$\left[MC(153) = C'(153) = .75 \quad \Delta q = 153 - 150 \right.$

2 pts (3) Estimate the profit made by producing the 151st unit.

Profit made by producing the 151st unit $\approx$ ___$\$.1$___

This is $MR(150) - MC(150) = .85 - .75 = .1$