

26. Correct. The answer is false. Ignoring the backstop, the monopolist would produce where $MR = MC$, which gives the optimum price of 21.67 with an optimum quantity of 16.66. The backstop technology would only enter when the prevailing price equals its AC, which is \$5 with a quantity of $Q_b = 50$ units. Under the threat of backstop, the monopolist tends to increase the entry barrier for backstop technology. To do so, it will produce a limit quantity which is, $Q_{lim} = Q_b - Q_{min}$. Where Q_{min} equals where the backstop technology has a maximum "economics of scale", which is 20 for this question.

$$Q_{lim} = 50 - 20 = 30 \text{ units}$$

$$P = 30 - 0.5Q = \$15$$

$$\pi = 15*30 - (0.8*30) = \$426$$