

**26. Correct. The answer is false.** Setting the standard at 18, we find the area of triangles and the social losses for Denver is 13.5 and 9 for Golden for a total of 22.5.

Denver's optimum is to the left of the standard and its losses are

$$\begin{aligned}
 &= \int_{15}^{18} MCdQ - \int_{15}^{18} MBdQ \\
 &= \int_{15}^{18} (-14 + 2Q)dQ - \int_{15}^{18} (30 - Q)dQ \\
 &= [-14Q + Q^2]_{15}^{18} - [30Q - (1/2)Q^2]_{15}^{18} \\
 &= [-14*18 + (18)^2 - (-14*15 + (15)^2)] - \\
 &\quad [30*(18) - (1/2)18^2 - (30*(15) - (1/2)15^2)] \\
 &= 13.5
 \end{aligned}$$

Golden's optimum is to the right of the standard and its losses are

$$\begin{aligned}
 &= \int_{18}^{21} MBdQ - \int_{18}^{21} MCdQ \\
 &= \int_{18}^{21} (30 - Q)dQ - \int_{18}^{21} (-12 + Q)dQ \\
 &= [40Q - (1/2)Q^2]_{18}^{21} - [-12Q + (1/2)Q^2]_{18}^{21} \\
 &= 9
 \end{aligned}$$

