You have 10 minutes to take this quiz. Please answer each question in space provided. You are encouraged to write your answers as fractions (as opposed to decimals) and to show your work. However, your score for each question will simply be 1 if your answer is correct and 0 if it is not correct.

1. A monopolist faces inverse demand \( P = 24 - 2q \) and has a marginal cost of \( MC = 2 \). What is her profit-maximizing quantity and price?

\[ q = \underline{} \quad \text{and} \quad p = \underline{} \]

2. The government imposes a tax of \( t = 4 \) per unit. What is the new profit-maximizing quantity and price?

\[ q = \underline{} \quad \text{and} \quad p = \underline{} \]