

Econ 101 | Vignette B1

Butterbeer Price Ceiling

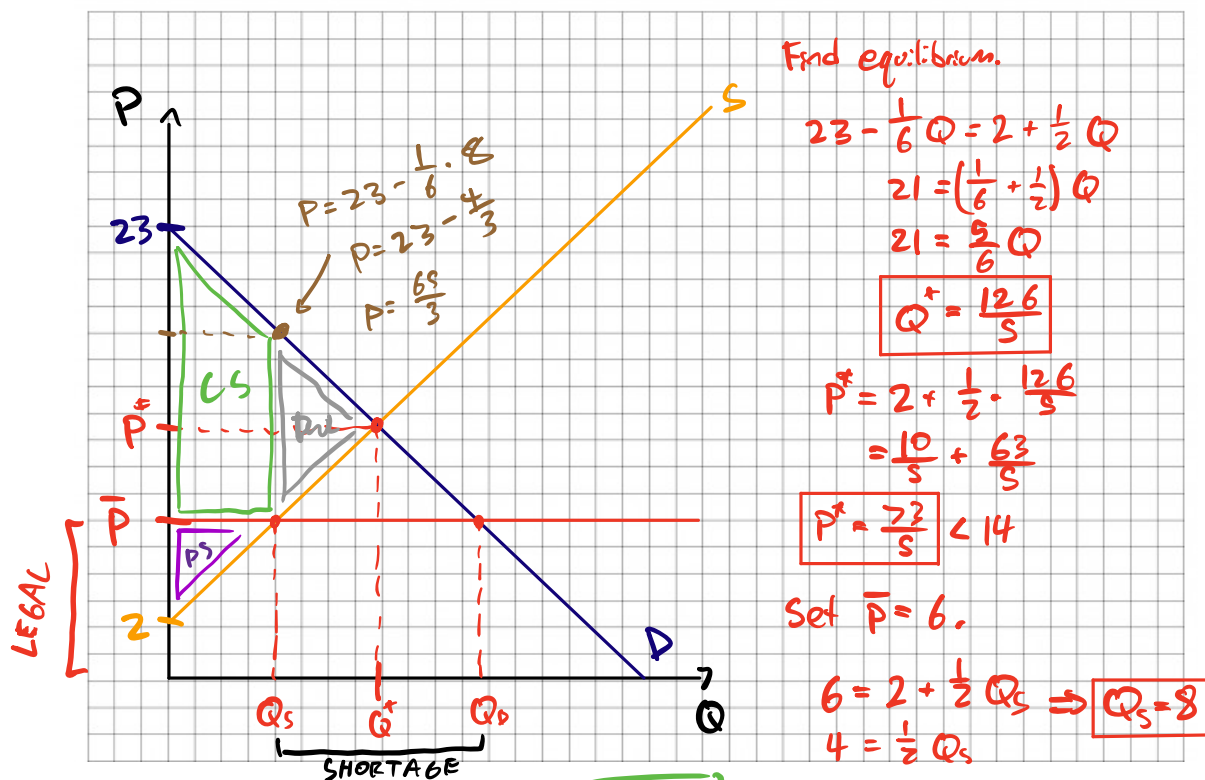
The Ministry of Magic decided to institute a price ceiling to allow many more to afford the treat. Find an appropriate price for the price ceiling and use a graph to evaluate the welfare effects your policy had on the market.

The supply and demand curves for butterbeer can be represented by the following equations.

$$P = 23 - \frac{1}{6}Q_D$$

$$P = 2 + \frac{1}{2}Q_S$$

The price ceiling lowers prices, creates a shortage, shifts PS to CS, and creates DWL.



$$CS = \square + \triangle = \frac{16}{3} + \frac{376}{3} = \frac{392}{3} = CS$$

$$\square = \left(\frac{6.3}{3} - 6\right) \times 8$$

$$\square = \left(\frac{6.3 - 18}{3}\right) \times 2 = \frac{4.7}{3} \times 8 = \frac{37.6}{3}$$

$$\triangle = \frac{4}{3} \times 8 \times \frac{1}{2} = \frac{16}{3}$$

$$PS = \nabla = (6 - 2) \times 8 \times \frac{1}{2}$$

$$PS = 16$$