

Total number of customers = 71500

Total sales (what customers will spend)

$$= 71500 \times \$4.50 = \$321750$$

80% of the sales = 80% of \$321750

$$= 80\% \times 321750$$

$$= \$257400$$

The costs of the business must be less than \$257400.

Total costs for the business for a year are:

$$\begin{aligned} \text{Rent} &= \$650 \times 52 (\text{weeks in a year}) \\ &= \$33800 \end{aligned}$$

$$\begin{aligned} \text{Advertising} &= \$1500 \times 12 (\text{months in a year}) \\ &= \$18000 \end{aligned}$$

$$\begin{aligned} \text{Wages} &= 10 \times 20 \times \$8.50 \times 52 \\ &= \$88400 \end{aligned}$$

$$\text{Heating/Lighting} = \$250 \times 12 = \$3000$$

$$\begin{aligned} \text{Ingredients} &= \$1.50 \times 71500 \\ &= \$107250 \end{aligned}$$

$$\begin{aligned} \text{Total costs} &= \$33800 + \$18000 + \$88400 \\ &\quad + 3000 + 107250 = \$250450 \end{aligned}$$

They can still go ahead with the business as the costs are about \$7000 less than 80% of the sales.

$$\$257400 - \$250450 = \$6950$$