

Exercise: Total Cost Equation

- (a) A takeaway restaurant sells 2000 sandwiches a day. Fixed costs (FC) are \$550 for the same period. The unit variable costs are \$0.35. How much are the total costs?

We know
$$\begin{aligned}TVC &= VC \times Q \\ &= 0.35 \times 2000 \\ &= \$700\end{aligned}$$

We also know
$$\begin{aligned}TC &= TVC + FC \\ &= 700 + 550 \\ &= \$1250\end{aligned}$$

The total costs are \$1250.

- (b) A factory makes Q cellular phones per day. Fixed costs for the same period are \$8000 and the variable costs for each cellular are \$500. Write the total cost equation.

We know
$$\begin{aligned}TVC &= VC \times Q \\ &= 500Q\end{aligned}$$

We also know
$$\begin{aligned}TC &= TVC + FC \\ TC &= 500Q + 8000\end{aligned}$$