

**9** A craft artist is producing items and selling them in a local market.

The selling price,  $\text{£}P$ , of an item is inversely proportional to the number of items produced,  $n$

**9 (a)** When  $n = 10$ ,  $P = 24$

Show that  $P = \frac{240}{n}$

**[1 mark]**

**9 (b)** The production cost,  $\text{£}C$ , of an item is inversely proportional to the square of the number of items produced,  $n$

When  $n = 10$ ,  $C = 60$

Find the set of values of  $n$  for which  $P > C$

**[4 marks]**

**9 (c)** Explain the significance to the craft artist of the range of values found in part **(b)**.

**[1 mark]**