

21st June



Corbettmaths

Joseph makes fizzy orange by mixing orange juice and lemonade in the ratio:

orange juice : lemonade = 3 : 5

He buys orange juice in 2 litre containers, each costing £1.20

He buys lemonade in 3 litre containers, each costing £1.50

He wants to sell the fizzy orange in 250ml bottles and to make a profit of 60% each bottle sold.

18:30
How much should he sell each bottle for?

$$O : 9 \times 1.20 = \pounds 10.80$$

$$L : 10 \times \pounds 1.50 = \pounds 15.00$$

$$\pounds 25.80$$

$$48 \div 0.25 = 192 \text{ bottles}$$

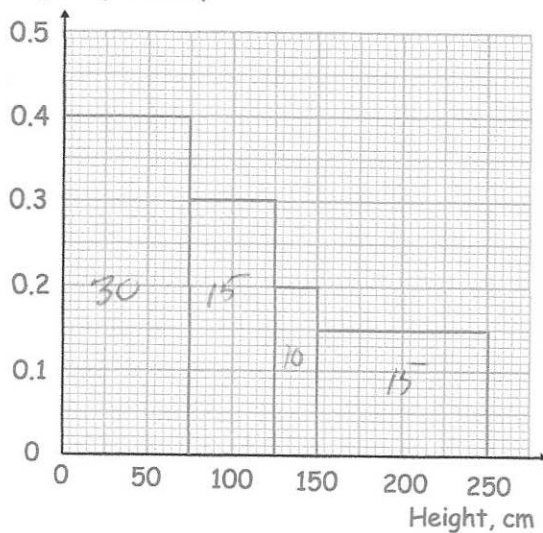
$$2580 \div 192 = 13.4375$$

$$13.4375 \times 1.6 = 21.5p$$

* Assumes bottles are free.

The histogram shows information about the heights of some sunflowers.

Frequency Density



Work out an estimate of the median height.

35th value

$$75 + \frac{5}{15} \times 50$$

$$= 91.6 \text{ cm}$$

Write down the coordinates of the minimum point on the curve

$$y = x^2 + 10x + 7$$

$$y = (x+5)^2 - 25 + 7$$

$$y = (x+5)^2 - 18$$

$$(-5, -18)$$