



Write $1.\dot{2}4$ as a mixed number.
Use an algebraic approach and give your answer in its simplest form.

$$x = 1.2444\dots$$

$$10x = 12.44\dots$$

$$100x = 124.44\dots$$

$$90x = 112$$

$$x = \frac{112}{90} = \frac{56}{45}$$

$$x = 1\frac{11}{45}$$

Write in the form $a\sqrt{2}$

$$\sqrt{72} + \sqrt{3} \times \sqrt{6}$$

$$\sqrt{72} + \sqrt{18}$$

$$\sqrt{36} \times \sqrt{2} + \sqrt{9} \times \sqrt{2}$$

$$6\sqrt{2} + 3\sqrt{2} = 9\sqrt{2}$$

Mass (m kg)	Frequency
$40 < m \leq 45$	64
$45 < m \leq 50$	74
$50 < m \leq 55$	155
$55 < m \leq 60$	80
$60 < m \leq 65$	26
$65 < m \leq 70$	1

400

LQ 100th Value
UQ 300th Value

Calculate an estimate of the interquartile range.

$$LQ = 45 + \frac{36}{74} \times 5 = 47.432432\dots$$

$$UQ = 55 + \frac{7}{80} \times 5 = 55.4375$$

$$UQ - LQ = 8.005 \text{ kg}$$

Shown is the graph of the function $y = f(x)$

Sketch

(a) $-f(x)$

(b) $f(x+p)$ where $0 < p < 1$
left

