Name: _____ 5-a-day Higher Plus

27th January

Corbettmaths

Write $1.2\dot{4}$ as a mixed number.
Give your answer in its simplest form.

$x = 1.2444...$
$10x = 12.444...$
$100x = 124.444...$

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

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.

$LQ = 45 + \frac{36}{74} \times 5 = 47.432432...$
$UQ = 55 + \frac{7}{80} \times 5 = 55.4375$
$55.4375 - 47.43\dot{2} = 8.005$

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

Sketch
(a) $-f(x)$
(b) $f(x + p)$ where $0 < p < 1$