

## Daily Question

### Day 5 Statistics – Mark Scheme

[Check mark scheme for answers , methods will be different with new specifications]

#### Question 1

(a)	2.75 or $2\frac{3}{4}$ , 5.5 or 5.50 or $5\frac{1}{2}$		B1 B1 (2)
(b)	Mean birth weight = $\frac{4841}{1500} = 3.227\bar{3}$	awrt 3.23	M1 A1 (2)
(c)	Standard deviation = $\sqrt{\frac{15889.5}{1500} - \left(\frac{4841}{1500}\right)^2} = 0.421093... \text{ or } s = 0.4212337...$		M1 A1ft A1 (3)
(d)	$Q_2 = 3.00 + \frac{403}{820} \times 0.5 = 3.2457...$	(allow 403.5..... $\rightarrow$ 3.25)	M1 A1 (2)

#### Question 2

(a)	Median = $32/2 = 16^{\text{th}}$ term (16.5) $\frac{x - 39.5}{49.5 - 39.5} = \frac{16 - 14}{25 - 14} \text{ or } x = 39.5 + \left(\frac{2}{11} \times 10\right)$ Median = 41.3 (use of $n + 1$ gives 41.8)	(awrt 41.3)	M1 A1 (2)
(b)	Mean = $\frac{1414}{32} = 44.1875$ Standard deviation = $\sqrt{\frac{69378}{32} - \left(\frac{1414}{32}\right)^2}$ $= 14.7$ (or $s = 14.9$ )	(awrt 44.2)	B1 M1 A1 (3)