

## N5 Lifeskills Unit 1 Revision

1.

$$\frac{29}{100}$$

2.

a)  $\bar{x} = 10 \div 5 = 2$

$x$	$x - \bar{x}$	$(x - \bar{x})^2$
1	-1	1
1	-1	1
1	-1	1
2	0	0
5	3	9
		$\Sigma 12$

$$s.d. = \sqrt{\frac{(x - \bar{x})^2}{n-1}} = \sqrt{\frac{12}{4}} = \sqrt{3}$$

b) All numbers have had 100 added on so still same spread.

$$s.d. = \sqrt{3}$$

3.

a) 12th

b)  $\frac{5}{20} = \frac{1}{4}$

4.

$$37, 41, 43 \mid 47, 56, 58 \mid 59, 61, 66 \mid 68, 70, 75$$

$Q_1 = 45 \qquad Q_2 = 58.5 \qquad Q_3 = 67$

i) median = 58.5

ii)  $SIGR = \frac{67 - 45}{2} = \frac{22}{2} = 11$

b) Median has increased by 8.5 so pupils performed better  
SIGR has reduced by 4 so pupils scores are more consistent

5.

$$a) \text{ mean} = \frac{410}{5} = 82$$

$x$	$x - \bar{x}$	$(x - \bar{x})^2$
84	-2	4
78	-4	16
87	5	25
80	-2	4
81	-1	1
$\Sigma 50$		

$$\begin{aligned} \text{sd} &= \sqrt{\frac{50}{4}} \\ &= \sqrt{12.5} \\ &\approx 3.5 \end{aligned}$$

b) All scores have 20 added on

$$\text{mean} = 82 + 20 = 102$$

$$\text{sd} = 3.5 \text{ (same spread)}$$

6.

$$\begin{aligned} 100 + 2.3 &= 102.3 \quad (\div 100) \\ &= 1.023 \end{aligned}$$

$$28400 \times 1.023^3 = 30405.01634$$

$$= \pounds 30405 \text{ (nearest pound)}$$

7.

£244 per month

$$244 \times 28$$

$$244 \times 28 = \text{£}6832 \text{ paid}$$

$$\begin{array}{r} 244 \\ \times 4 \\ \hline 976 \\ \hline \end{array}$$

$$\begin{array}{r} 976 \\ \times 7 \\ \hline 6832 \\ \hline \end{array}$$

$$\begin{array}{r} 244 \\ \times 8 \\ \hline \text{£}1952 \\ \hline \end{array} \text{ left to pay}$$

8.

D 1

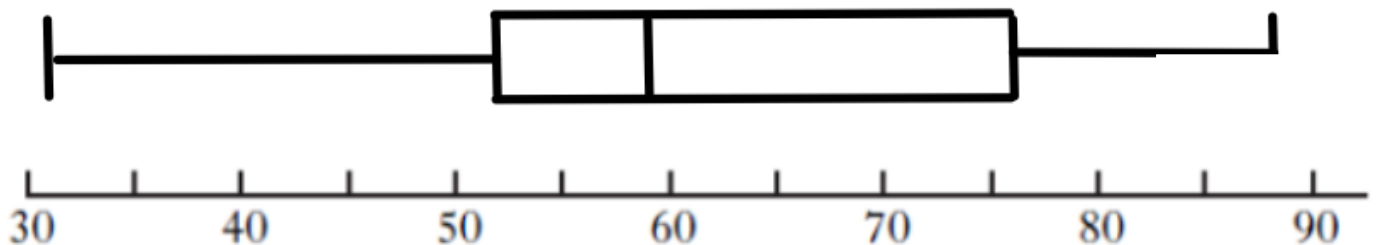
9.

a) Boys because lowest result is 47.

b) i) median = 58

ii) lower quartile = 52

iii) upper quartile = 76



d) SIQR of boys is lower than girls ( $5 < 12$ ) so results were more consistent

10.

$$22000 - 15000 = \text{£}7000 \text{ commission}$$

$$2.5\% \rightarrow 7000$$

$$1\% \rightarrow 7000 \div 2.5 = 2800$$

$$100\% \rightarrow 2800 \times 100 = \text{£}280,000$$

11.

$$\text{Taxable income} = 15425 - 5225 = \text{£}10200$$

$$10\% \text{ of } 2230 = \text{£}223$$

$$22\% \text{ of } (10200 - 2230) = \text{£}1753.40$$

$$\text{Total} = \text{£}1976.40$$

12.

a)  $\text{£}292.33$  per month

N5 L5

$$292.33 \times 48 = \text{£}14031.84$$

b)  $\text{£}425.63$  per month

$$425.63 \times 36 = \text{£}15322.68$$

No. It would be  $\text{£}1290.84$  more expensive

13.

$$100 + 4.5 = 104.5\% \quad (\div 100)$$

$$= 1.045$$

$$50000 \times 1.045^4 = \text{£}59625.93003$$

$$\text{Interest} = 59625.93 - 50000 = \text{£}9625.93003$$

$$= \text{£}9625.93$$

14.

40 hours

+ 6 hours

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46 hours

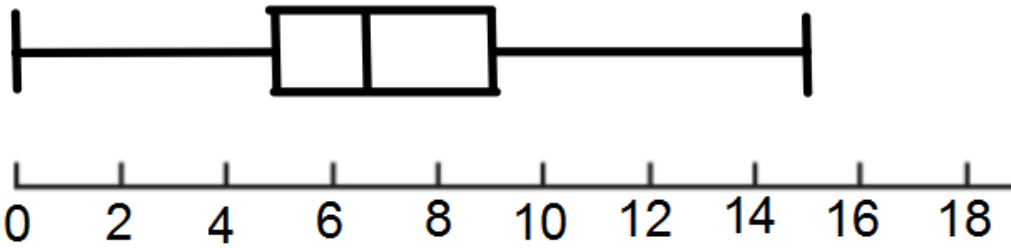
3 hours double time = 6 hours

$$239.20 \div 46 = \text{£}5.20$$

15.

0, 2, 5, 6, 6.5, 7, 8, 9, 11, 15  
          ↑                  ↑                  ↑  
           $Q_1$                    $Q_2 = 6.5$                    $Q_3$

- i) median = 6.5
- ii) lower quartile = 5
- ii) upper quartile = 9



- c) Train has a lower median ( $4 < 6.5$ ) so is more on time  
SIQR for train (1.5) is lower than bus (2) so train is more consistent

16.

$$100 - 20 = 80\% \\ = 0.8$$

$$\text{Half value} = \text{£}375,000$$

$$\text{Year 1: } 750000 \times 0.8 = 600000$$

$$2: 480000$$

$$3: 384000$$

$$4: 307200$$

Replaced after 4 years

17.

a)  $A = £75.00$

$B = 1.6\% \text{ of } 75.00 = £1.20$

$C = 75.00 + 1.20 + 62.99 + 15.88 = £155.07$

b) Minimum payment :  $3\% \text{ of } 155.07 \text{ or } £5 \text{ whichever is largest}$   
 $= £4.65$

£5 minimum payment

18.

$11\% \text{ of } 3000 = 330 +$

$10\% \text{ of } 3300 = 330 -$

$2006 : 3300 - 330 = 2970$

Less by 30

19.

a) mean = 
$$\begin{array}{r} 8900 \\ 12700 \\ 59200 \\ 10300 \\ + 9700 \\ \hline 100800 \\ \hline 32 \end{array}$$

$$\begin{array}{r} 20160 \\ 5 \overline{) 100800} \end{array}$$

mean = 20160

b) The mean as the median does not take the largest attendance into consideration

20.

1 157 818 887 139

↑  
4 sig fig

£1158 000 000 000

21.

Basic hourly rate :  $296 \div 40 \begin{matrix} -4 \\ 10 \end{matrix}$   $\frac{7.4}{4 \overline{)29.6}}$

$$\pounds 7.40$$

$$\begin{array}{r} \text{Time and a half} = 7.40 \\ + 3.70 \\ \hline \pounds 11.10 \end{array}$$

$$\pounds 55.50 = 11.10 \times (5) \rightarrow 5 \text{ hours overtime}$$