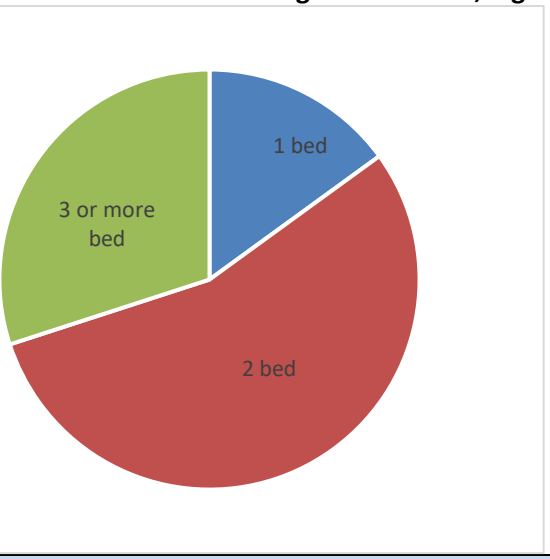
Highfield Functional Skills Qualification in Mathematics at Level 1 PAPERCODE: FSQC108_MS

Question	Total marks	Content Ref	Process	Marker annotation	Accepted answer AFT = allow follow through CAO = correct answer only OE = or equivalent SC = Special Case
Underpinning Knowledge					
1 (Q10 On-screen)	**1**	**24**	Correct shape identified	**1CA**	**CAO** **C**
2 (Q11 On-screen)	**1**	**8**	Correct order	**1CA**	**CAO** $1\frac{3}{4}$ $\frac{12}{8}$ $1\frac{1}{4}$ $\frac{18}{24}$ *Accept equivalent fractions or decimals*
3 (Q12 On-screen)	**1**	**6**	Correct multiplication	**1CA**	**CAO** **361**
4 (Q13 On-screen)	**2**			**2CA**	**CAO** **48 (cm)**
		If answer incorrect revert to:			
		22	Method for calculating perimeter	**1a**	12 x 4 OE
		22	Correct answer	**1b**	CAO 48 (cm)
5 (Q14 On-screen)	**2**			**2CA**	**CAO** **16.25**
		If answer incorrect revert to:			
		29	Correct method to find mean	**1a**	(14.5 + 18 + 22.5 + 20 + 13.8 + 8.7) or 97.5 ÷ 6
		29	Correct answer	**1b**	CAO 16.25
6 (Q15 On-screen)	**1**	**11**	Suitable method shown to check Q5	**1CA**	**Reverse calculation used** **e.g. 16.25 × 6 = 97.5**

7 (Q16 On-screen)	**1**	**31**	Correct probability identified as a fraction	**1CA**	**CAO** $\frac{5}{12}$
8 (Q17 On-screen)	**1**	**3**	Correct decimal calculated	**1CA**	**CAO** **7.005**
9 (Q18 On-screen)	**2**			**2CA**	**CAO** **16 (cm)**
		If answer incorrect revert to:			
		21	Scale interpreted correctly	**1a**	Method to use scale 160 × 100 ÷ 1000
		21	Correct distance	**1b**	CAO 16 (cm)
Problem Solving					
10 (Q19 On-screen)	**5**			**5CA** **3CA**	**CAO** **No and 7.36** **SC** **No and 8.16 > 8m or Yes and 816 > 8000 cm (if width of wood ignored)**
		If answer incorrect revert to:			
		20	Consistent units used	**1a**	Correct measurements used 5cm = 0.05m seen or used or all lengths converted to cm
		25	Allowing for thickness of wood	**1b**	Method to find lengths of side pieces or bottom lengths or legs Sides 0.3 – 0.05 – 0.05 (0.2) or Bottom lengths 1.2 – 0.05 – 0.05 (1.1) or Legs 0.54 – 0.05 (0.49)
		11	Finding lengths of 12 pieces	**1c**	Method to find lengths (allow omission of thickness of wood for this mark) 2 × 1.2 (= 2.4) OE 4 × (0.2) (= 0.8) OE 2 × (1.1) (= 2.2) OE 4 × (0.49) (= 1.96) OE
		11	Finding total length of their 12 pieces	**1d**	Method to find total length AFT 2 × 1.2 + 4 × (0.2) + 2 × (1.1) + 4 × (0.49)
		10	Correct answer and comparison using consistent units	**1e**	CAO No and 7.36 OE

11 (Q20 On-screen)	**6**			**6CA**	**CAO** **15 buckets (allow 14.6..)**
		If answer incorrect revert to:			
		23	Method to find volume or 2/3 of a length	**1a**	Volume of tank 120 × 55 × 30 (=198000) or Finding 2/3 of depth 55 ÷ 3 × 2 (=36.66)
		9	Method for finding 2/3 of volume	**1b**	198000 ÷ 3 × 2 (=132000) or e.g. 120 × 36.66 × 30 (=131999)
		20	Converting capacity	**1c**	AFT Converting cm^3 to litres (132000) ÷ 1000 (=132)
		20	Converting capacity of bucket	**1d**	CAO Converting litres to gallons 2 × 4.5 (= 9)
		17	Finds correct proportion	**1e**	AFT Finding number of buckets (132) ÷ 9 (=14.67)
		17	Correct number of buckets	**1f**	CAO 15 buckets or 14.67 (allow any suitable rounding)

12 (Q21 On-screen)	**4**			**4CA**	**CAO** **No and 22812.5 (hours) or** **No and (only) 4.38 (years)** ***Must be supported by correct workings***
		If answer incorrect revert to:			
		17	Calculate proportion of time light is on	**1a**	CAO 8:30 to 9:00 = 12.5 hours
		20	Finding hours in a year or day's usage in 5 years	**1b**	AFT (12.5) x 365 = (4562.5) or 20000 ÷ (12.5) = (1600) *Make reasonable allowances of figures if learner factors in leap year(s), e.g. 12.5 x 365.25, or 12.5 x 365 + 12.5*
		20	Finding hours in 5 years or year's usage	**1c**	AFT (4562.5) x 5 = (22812.5) or (1600) ÷ 365 = (4.38)
		1	Correct decision	**1d**	CAO No and 22812.5 (hours) or No and 4.38 (years) *Must be supported by correct workings, making reasonable allowances if learner factors in leap year(s)*

13 (Q22 On-screen)	**5**			**5CA**	**CAO** **Pie chart labelled with accurate angles and labels, e.g.** 
		If answer incorrect revert to:			
		27	Find angles	**1a**	360 ÷ 100 × 15 OE 360 ÷ 100 × 55 OE 360 ÷ 100 × 30 OE
		27	3 correct angles	**1b**	CAO 54° and 198° and 108° *(allow up to 2° tolerance)*
		26	Plot a sector	**1c**	CAO At least 1 sector plotted accurately
		26	Plot all sectors	**1d**	CAO All three sectors plotted accurately
		27	Correct chart labelling	**1e**	CAO Chart labelled correctly

14 (Q23 On-screen)	**4**			**4CA**	**CAO** **No and 169000 > 165000 OE or** **No and 26.9%** ***Must be supported by correct workings***
		If answer incorrect revert to:			
		27	Interpret graph and use correct values	**1a**	CAO 130(000) and 165(000)
		14	Method to calculate 30 % Or starts to find actual % increase	**1b**	130000 ÷ 100 × 30 (= 39000) **OR** 165000 – 130000 (= 35000)
		14	Calculates 30 % increase or % increase	**1c**	AFT 130000 + (39000) (= 169000) or (35000) ÷ 130000 × 100 (= 26.9..%)
		1	Correct decision with accurate figures	**1d**	CAO No and 169000 > 165000 OE or No and 26.9% *Must be supported by correct workings*
15 (Q24 On-screen)	**5**			**5CA**	**CAO** **No and (only) (£)212478 or (£)250000 > (£)212478 or No and (£)37522 OE**
		11	Method to calculate both yearly salaries	**1a**	538.50 × 52 (=28002) and 2725.50 × 12 (32706)
		5	Method to apply formula	**1b**	AFT 3.5 × (28002) and 3.5 × (32706) or 28002 + 32706 = (60708)
		5	Calculates total using formula	**1c**	AFT (98007) + (114471) (=212478) or 3.5 × (60708) = (212478)
		5	Finds correct answer	**1d**	CAO (£)212,478
		1	Correct decision with accurate figures	**1e**	CAO No and (£)250000 > (£)212478 or No and (£)37522 (short) OE

16 (Q25 On-screen)	**4**			**4CA**	**CAO (£)144280**
		1	Reading/writing large number in words	**1a**	CAO *understanding number in digits* 180350
		19	Method to calculate 20%	**1b**	AFT (180350) ÷ 100 x 20 (= 36070) OE
		19	Calculates discounted figure	**1c**	AFT (180350) – (36070) (= 144280)
		19	Finds correct answer	**1d**	CAO 144280