## Mark Scheme (Results) Summer 2008

Functional Skills

Functional Skills Maths Level 2 (FM201/01)

\begin{tabular}{|c|c|c|c|c|}
\hline No \& \& Answer \& Mark \& Notes \\
\hline \begin{tabular}{l}
1. (a) \\
(b)
\end{tabular} \& \[
\begin{aligned}
\& £ 700,000+£ 327,500+2 \times £ 175,000 \\
\& \text { "£1377500"-£1309500 }
\end{aligned}
\] \& \[
\begin{aligned}
\& \text { £1,377,500 } \\
\& £ 68,000
\end{aligned}
\] \& \[
\begin{aligned}
\& 1 \\
\& 1
\end{aligned}
\] \& \begin{tabular}{l}
B1 cao \\
B1 ft or cao. \\
SC Award B1 in (b) for 1202500 in (a) followed by 56750 in (b)
\end{tabular} \\
\hline \begin{tabular}{l}
2. (a) \\
(b)
\end{tabular} \& \begin{tabular}{l}
\[
20 \times 3=60
\] \\
Eg Males more, females less
\end{tabular} \& J Ferrero (Males) more (aces) \& \[
\begin{aligned}
\& 1 \\
\& 1
\end{aligned}
\] \& \begin{tabular}{l}
B1 cao \\
B1 oe
\end{tabular} \\
\hline \begin{tabular}{l}
3. (a) \\
(b)
\end{tabular} \& \& \[
\begin{aligned}
\& 140-145 \mathrm{mph} \\
\& 180-190 \mathrm{~km} / \mathrm{h}
\end{aligned}
\] \& \[
\begin{aligned}
\& 1 \\
\& 1
\end{aligned}
\] \& \begin{tabular}{l}
B1 cao \\
B1 cao
\end{tabular} \\
\hline \begin{tabular}{l}
4. (a) \\
(b) \\
(c)
\end{tabular} \& R Gasquet R Nadal R Nadal \& \begin{tabular}{l}
7 \\
As opposite. \\
Reasoning
\end{tabular} \& \begin{tabular}{l}
\[
\begin{aligned}
\& 1 \\
\& 1
\end{aligned}
\] \\
1
\end{tabular} \& \begin{tabular}{l}
B1 cao \\
B1 cao Accept misspellings if unambiguous, or missing initials \\
B1 Reasoning: eg other factors involved, probability only an estimate, the outcomes are not equally likely, tennis a game of skills, etc.
\end{tabular} \\
\hline \begin{tabular}{l}
5. \\
(a) \\
(b) \\
(c)
\end{tabular} \& \[
\begin{aligned}
\& 2 \times 36=72 ; \quad 2 \times 45=90 \\
\& 72+90=162 ; \quad 200-162= \\
\& " 38 " / 200 \\
\& \\
\& £ 200 \div 50=4 \\
\& 7-4=
\end{aligned}
\] \& \[
\begin{aligned}
\& £ 38 \\
\& 19 / 100 \\
\& 3
\end{aligned}
\] \& 2
2
2 \& \begin{tabular}{l}
M1 for the complete process of \(2 \times 36,2 \times 45\) then add, and subtract total from 200 \\
A1 cao \\
M1 for process of conversion to fraction "38"/200 (eg 119/200) \\
A1 cao or ft if fully simplified if " 38 " > 200 M1 for process of \(£ 200 \div 50\) or sight of 4 \\
A1 cao
\end{tabular} \\
\hline \begin{tabular}{l}
6. (a) \\
(b) \\
(c)
\end{tabular} \& \[
\begin{aligned}
\& 50 \times 5= \\
\& 600 \div 6=100 ; \times 5=500 \\
\& \text { OR } 600 \times 5 \div 6 \text { etc. } \\
\& \text { Water: } 800 \times 5=4000 ;+800=4800 \\
\& 4800 \div 1000=4.8
\end{aligned}
\] \& \[
\begin{aligned}
\& 250 \mathrm{ml} \\
\& 100 \mathrm{ml} \\
\& 500 \mathrm{ml} \\
\& \\
\& 4.8 \text { to } 5 \text { litres }
\end{aligned}
\] \& 1
2

2 \& | B1 cao |
| :--- |
| M1 for process of $600 \div 6$ or $600 \times 5$ or $250 \times$ 2 or 100 seen (implied process) |
| A1 for 100 \& 500 |
| SC Award B1 if 100, 500 wrong way around or one answer is given correctly. |
| M1 for $800 \times 5+800$ or for $(800 \times 5) \div 1000$ or for 4800 or 4 seen |
| A1 cao | <br>

\hline
\end{tabular}

| No |  | Answer | Mark | Notes |
| :---: | :---: | :---: | :---: | :---: |
| 7. (a) <br> (b) <br> (c) <br> (d) | $\begin{aligned} & 807-97 \\ & 210 \times 100 \\ & 12 \times 30=360 ; 360 \times 97= \end{aligned}$ | London 710 <br> £21000 <br> £34920 | $\begin{aligned} & 1 \\ & 2 \\ & 1 \\ & 2 \end{aligned}$ | B1 for London (West End) <br> M1 process of identification of 807, 97 with link ie subtraction or "to" <br> A1 710 cao <br> B1 cao <br> M1 process of finding area: $12 \times 30$ or $\times 97$ or sight of 360 <br> A1 cao |
| 8. (a) <br> (b) | $\begin{aligned} & 200 \div 12=16.66 \\ & 200 \div 17=11.76 \end{aligned}$ | $\begin{aligned} & 16 \\ & 11 \end{aligned}$ | $\begin{aligned} & 2 \\ & 1 \end{aligned}$ | B3 for 11 and 16 OR <br> B2 for 11 or 16 OR 16.66 and 11.76 OR <br> B1 for either 11.76 or 16.66 <br> NB: accept answers 16.7 or 16.6 for 16.66 , and 11.7 etc for 11.76 |
| 9. (a) <br> (b) <br> (c) | $\begin{aligned} & 900 \div 1000= \\ & \text { Length: } 2+" 0.9 "+2+" 0.9 "+2=7.8 \\ & \text { Width: } 1+" 0.9 "+1=2.9 \end{aligned}$ | $0.9 \mathrm{~m}$ <br> Length 7.8 m Width 2.9 m | $\begin{aligned} & 1 \\ & 3 \end{aligned}$ | B1 cao <br> M1 process of showing a combination of at least one 2 and one " 0.9 " <br> M1 process of showing the correct number of 1 s and " 0.9 "s for the width <br> A1 cao <br> SC Award B2 for one answer correct |
| 10. (a) <br> (b) <br> (c) <br> (d) | $35 \div 5 \times 4 \text {, or } 35-7$ $\begin{aligned} & 805+715+" 745 "+750+715=38 \mathrm{~h} 10 \mathrm{~min} \\ & 38 \mathrm{~h} 10 \mathrm{~min}-5 \mathrm{~h}= \end{aligned}$ | $28$ <br> 20\% <br> 7 h 45 min <br> 33h 10min | $\begin{aligned} & 2 \\ & 1 \\ & 1 \\ & 3 \end{aligned}$ | M1 for a complete process of $\div 5$ and $\times 4$, or sight of 7 <br> A1 cao <br> B1 cao <br> B1 Accept 7 3/4 h 0 min ; do NOT accept <br> 7.75h or 7.45 h <br> M1 for the process of finding duration times (at least 2 correct from 5) <br> M1 for accounting for lunch (at any stage in working) for all 5 days. <br> A1 cao |


| No |  | Answer | Mark | Notes |
| :---: | :---: | :---: | :---: | :---: |
| 11. (a) <br> (b) <br> (c) | $(2.30+1.20+3.25+0.70+2.30) \div 5=9.75 \div 5$ | $\begin{aligned} & \mathrm{£1.95} \\ & 2 / 5 \\ & \text { Reason } \end{aligned}$ | $\begin{aligned} & 2 \\ & 1 \\ & 1 \end{aligned}$ | M1 process of adding amounts and $\div 5$ <br> A1 cao <br> B1 2/5 or equivalent fraction, decimal, percentage <br> B1 for criticising the time period or suggesting sampling during the whole day |
| 12. |  | $\begin{aligned} & \text { Start 2(pm) } \\ & \text { Finish } 5.30(\mathrm{pm}) \end{aligned}$ | 2 | M1 process of identifying the times eg notes on diagrams, or for 1 answer given (implied process) <br> A1 cao <br> NB: throughout this question accept 24 h times instead of 12 h times; condone missing am/pm. |
| 13. (a) <br> (b) | $\begin{aligned} & £ 6.20 \times 5 \frac{1}{2} \times 6 \\ & £ 6.20 \div 2=£ 3 . / 10, £ 6.20+£ 3.10 \end{aligned}$ | $\begin{aligned} & £ 204.60 \\ & £ 9.30 \end{aligned}$ |  | M1 for the process of substitution with operators shown. Do not accept 5:30 for $5 \frac{1}{2}$ <br> A1 cao £204.6 gets M1 AO <br> B1 cao <br> In this question penalise incorrect money notation once only. |
| 14. (a) <br> (b) | $180 \div 9$ | Teas 40 Coffees 140 $\frac{2}{9} \text { or " } \frac{40}{180} \text { " }$ | 2 1 | M1 process of division by 9 (any stage) A1 both answers NB: for answer wrong way around award M1 (implied) <br> B1 $\frac{2}{9}$ or " $\frac{40}{180}$ " oe |


| No |  | Answer | Mark | Notes |
| :---: | :---: | :---: | :---: | :---: |
| 15. (a) <br> (b) | $£ 1.10+£ 1.50+2 \times £ 1.50$ $£ 8.40 \times 12.5 \div 100=$ | $\begin{aligned} & £ 5.60 \\ & £ 1.05 \end{aligned}$ | 2 2 | M1 for the complete process shown or for an answer of $£ 4.10$ or $£ 4.1$ (implied partial process) <br> A1 cao Award 1 mark only for $£ 5.6$ M1 for \% process ( $\times 0.125$ oe) shown or $\div 2 \div 2 \div 2$ <br> A1 cao with correct rounding <br> SC: award M1 (implied process) for $£ 9.45$ |
| 16. (a) <br> (b) | $\begin{aligned} & \pi \times 10 \times 10 \\ & (20 \times 20)-" 314 " \end{aligned}$ | $\begin{aligned} & 314-315 \\ & 85-86 \end{aligned}$ | $\begin{aligned} & 2 \\ & 2 \end{aligned}$ | M1 for process of finding area: $\pi \times 10 \times 10$ oe <br> A1 within range 314-315 <br> M1 for process of finding $20 \times 20$ and of subtracting the area of the circle <br> A1 within range 85-86 OR ft 400 - "(a)" if <br> (a) $<400$ |

