Approximation and Estimation — Mark Scheme

1. (a) 2.88   1

B1 for 2.88

(b) 0.08   1

B1 for 0.08

(c) 4   2

$$\frac{8 \times 5}{10}$$

B2 for 4
(B1 for sight of 8, 5 or 10)

[4]

2. (a) 54 000   1

B1 cao accept 54 thousand

(b) 50 000   1

B1 (accept ten thousand or 10 000) oe

[2]

3. (a) $\dfrac{1}{12}$ 2

$$\frac{11}{12} - \frac{10}{12}$$

M1 for correctly writing both fractions to a common denominator

A1 for $\dfrac{1}{12}$ oe

(b) 140   2

$$\frac{70 \times 400}{200}$$

B2 for 140 (accept 136)
(B1 for sight of any two of 70, 400 or 200)

[4]

4. (a) 17252   1

B1 cao

(b) 5400   1

B1 cao

(c) thousands, 1000, 4000   1

B1 cao

[3]

5. (a) 1.5 – 2.0   1

(b) 3 – 6   3

Height of man × "2.5"
> *B1 for height between 1.5m – 2.0m inclusive*
> *B3 for height between 3m – 6m inclusive*
> *(B2 for multiplying (a) by a number between 2 and 3 inclusive)*
> *(B1 for multiplying (a) by a number)*

[4]

6. (a) 2.39   1
> *B1*

(b) 3 : 4   1
> *B1*

[2]

7. (a) 40000   1
> *B1 cao*

(b) 0.0007   1
> *B1 cao*

[2]

8. (a) 0.06   1
> *B1 cao*

(b) 30000   1
> *B1 cao*

[2]

9. (a) 350 000   1
> *B1*

(b) (i) Twenty five thousand four hundred   1
> *B1 (accept 25 thousand 4 hundred)*

(ii) 5 000   1
> *B1 (accept 5 thousand, thousand, 1000)*

(c) (i) 26 000   1
> *B1*

(ii) 25 700   1
> *B1*

[5]