

GCSE AQA Math 8300

Measures & Accuracy

Mark Scheme

"We will help you to achieve A Star "



[3]

[2]

M1.

800 or 1600 or 200 or 60 or 120 or 100

800 or 1600 and 200 and 60 or 120 or 100

1920 or 1900 or 2000 SC1 1900 without working or 1900 from 1899

M2.

(a) 2.17158...

(b) 2.2 *ft their answer to (a)*

M3.(a) Subtracting two amounts with one correct

83 - 57.7 or 83 and 57.7 chosen

57.7 + 25.3 = 83

25.3

Condone 25 300 000



(b) 0.21 × their 126 200

oe

Condone any attempt to incorporate the million Digits 26 502 imply M1

26 502

Condone 26 502 000 000 SC1 99 698

Additional Guidance

Allow the method for 21% of any value from table (or misread)

Possible answers are 17.43, 14.07, 12.117, 11 256, 11 739

Must be using correct value for full marks

Mark the **whole** method so further working will not score (except for those who misread and work out 21% off – see SC1)

(c) 36 600 000 000 ÷ 29 300 000

or

36 600 (million) ÷ 29.3 (million) Digits 1249... or 125... imply M1

1249. ...

May be implied by 1250

1250

ft any answer correctly rounded to the nearest 10

[7]



M4.Attempt to count squares or any area calculation e.g. 4 × 7

Evidence of counting areas e.g. dots or numbers in shaded squares

[22, 27]

A1 for [19, 22) or (27, 30]

M5.

1950 or 2049 or 1500 or 2499

1500 and 2049	
or	
1950 and 2499	
	Must be seen as a linked pair

549

SC2 550

M6.

32

B1 4 or 16 or 0.5

M7.

5

B1 for 25 or 5² seen or any value in range (5, 5.92]

[2]

For more information please visit https://www.exampaperspractice.co.uk

[3]

[3]

[2]



[4]

[3]

(a) 80 – 74 or 6 seen or $\frac{74}{80}$ (×100) or 0.925 or 92.5

 their 6
 (x 100) or 0.075

 or 100 - their 92.5
 or 1 - 0.925

 0.075 implies both method marks

SC1 for 8.1(...)

(b) 11.5 kg *Circled or indicated*

7.5

М9

M8.

7500 – 1875 or 5625 their 5625 ÷ 36 156.25

M10.2.85 × 0.72 × 0.9

oe 285 × 72 × 90

1.8(468)

1 846 800

m³

cm³



Additional Guidance

Accept any rounding to 2 sf or more without working seen, eg 1.85 or 1 850 00 $\,$

M11.(a) 20(p)

Accept £ 0.20(p)

- (b) $10 \times (25 \text{their } 20)$
 - or 10 × 25 10 × their 20 oe *ft their 20 from (a) if < 25*

50(p)

Accept £ 0.50(p)

M12.(a) 2 × 2(.00) + 1.25 oe

5.25

(b) 10 - their 5.25

4.75

ft their 5.25

[4]

[3]



M13.

285 or 284.9 or 275 or 12.5 or 13.5 or 13.49 or 18.5 or 18.49 or 17.5

their 285 as part of trapezium equation

$$\operatorname{or}\left(\frac{\operatorname{their}\ 12.5\ +\ \operatorname{their}\ 17.5\ }{2}\right)h$$

oe their 285 = (280, 290] their 12.5 = [12.5, 13) their 17.5 = [17.5, 18)

$$285 = \left(\frac{12.5 + 17.5}{2}\right)h$$

oe fully correct

19 with no incorrect bounds used

[4]

M14.(a) 2520 ÷ 126 or 20 or

126÷2520 or 0.05 oe

44 x their 20 or 44 ÷ their 0.05 or 4960 ÷ their 20 or 4960 × their 0.05 or 880 or 248 $OR = M2 \quad 44 \div 126 \times 2520 \text{ or}$ $4960 \div 2520 \times 126$



2520	880	1560	4960
126	44	78	248

(b) (minimum) 3785

(maximum) 3794

SC1 correct answers interchanged

[5]

M15.39.5 or 24.5 or 40.5 or 25.5

or 965 or 975

One correctly evaluated trial using at least one bound

or one correctly evaluated trial giving an answer in range 965 to 975 $eg \ 39.5 \times 24.5 = 967(.75)$ $or \ 39.7 \times 24.5 = 972(.65)$ $or \ 40.5 \times 25.5 = 1032(.75)$ Trial values must be in range of bounds

Ticks cannot tell and 965 seen

and

One correctly evaluated trial giving an answer in range 965 to 970

or

Ticks cannot tell and 975 seen

and

One correctly evaluated trial giving an answer in range 970 to 975 eg 967.75 eg 972.6



Alternative method 1

One correctly evaluated trial giving an answer below 970

(or their value [965, 975])

One correctly evaluated trial giving an answer below 970

(or their value [965, 975])

and

One correctly evaluated trial giving an answer above 970

(or their value [965, 975])

Ticks cannot tell

and

One correctly evaluated trial giving an answer below 970

(or their value [965, 975])

and

One correctly evaluated trial giving an answer above 970

(or their value [965, 975]) eg 967.75 and 1032.75 or 967.75 and 1000

or 967.75

Additional Guidance

Trial values must be within range of bounds, e.g. $39.5 \times 26 = 1027$ scores B1M0

 $25 \times 40 = 1000$ on its own scores zero but see Alt method 2

[3]