Limits of Accuracy

Name:	Class:	Date:

Mark	/ 12	%

1) The number 98 has been rounded to the nearest whole number. Find its lower and upper bounds. [1]

2) The number 92 has been rounded to the nearest integer. Find its lower and upper bounds. [1]

3) The number 4000 has been rounded to the nearest 1000. Find its lower and upper bounds. [1]

4) The number 95.1 has been rounded to the nearest tenth. Find its lower and upper bounds. [1]

5) The number 60 has been rounded to 1 significant figure. Find its lower and upper bounds. [1]

6) Find the upper and lower bounds of a × b, where a = 15 and b = 9 (both have been rounded to the nearest whole number).

[1]

7) Find the upper and lower bounds of $\frac{a}{b}$, where a = 12 and b = 5 (both have been rounded to the nearest unit).

[1]

8) Find the upper and lower bounds of a + b, where a = 13 and b = 9 (both have been rounded to the nearest whole number).

[1]

9) Find the upper and lower bounds of a − b, where a = 15 and b = 4 (both have been rounded to the nearest unit).

[1]

10) The weight of a table is 6 kg, correct to the nearest kg. [1]
Find the largest possible weight of the table.

11) The distance between two towns is 800 miles, rounded to the nearest 100 miles. [1]
Find the minimum possible distance between them.

12) Chloe drives 5 km (correct to the nearest km) to work, in 15 minutes (correct to the nearest minute).
Find the least possible average speed.

[1]

Solutions for the assessment Limits of Accuracy

1) $97.5 \leq 98 < 98.5$

2) $91.5 \leq 92 < 92.5$

3) $3500 \leq 4000 < 4500$

4) $95.05 \leq 95.1 < 95.15$

5) $55 \leq 60 < 65$

6) $123.25 \leq a \times b < 147.25$

7) $2.091 \leq \frac{a}{b} < 2.778$

8) $21 \leq a + b < 23$

9) $10 \leq a - b < 12$

10) 6.5 kg

11) 750 miles

12) 17.4 km/h