**Limits of Accuracy - Advanced**

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| Name : | Class : | Date : |

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| Mark : | /12 | % |

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| **1)** The number 82 has been rounded to the nearest unit. Find its lower and upper bounds. | [1] |
| **2)** The number 24 has been rounded to the nearest whole number. Find its lower and upper bounds. | [1] |
| **3)** The number 400 has been rounded to the nearest 100. Find its lower and upper bounds. | [1] |
| **4)** The number 41.5 has been rounded to the nearest tenth. Find its lower and upper bounds. | [1] |
| **5)** The number 300 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 = 13 and b = 8 (both have been rounded to the nearest integer). | [1] |
| **7)** Find the upper and lower bounds of  , where a = 8 and b = 6 (both have been rounded to the nearest whole number). | [1] |
| **8)** Find the upper and lower bounds of a   b, where a = 9 and b = 8 (both have been rounded to the nearest whole number). | [1] |
| **9)** Find the upper and lower bounds of a  b, where a = 10 and b = 8 (both have been rounded to the nearest whole number). | [1] |
| **10)** The weight of a table is 11 kg, correct to the nearest kg. Find the smallest possible weight of the table. | [1] |
| **11)** The distance between two towns is 50 miles, rounded to the nearest 10 miles. Find the maximum possible distance between them. | [1] |
| **12)** Caitlin drives 7 km (correct to the nearest km) to work, in 28 minutes (correct to the nearest minute). Find the greatest possible average speed in kilometers per hour. | [1] |

**Solutions for the assessment Limits of Accuracy - Advanced**

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| **1)** 81.5   82   82.5 | **2)** 23.5   24   24.5 |
| **3)** 350   400   450 | **4)** 41.45   41.5   41.55 |
| **5)** 250   300   350 | **6)** 93.75   a   b   114.75 |
| **7)** 1.154       1.545 | **8)** 16   a   b   18 |
| **9)** 1   a   b   3 | **10)** 10.5 kg |
| **11)** 55 miles | **12)** 16.4 km/h |