

# Assessment Feedback Sheet

## Q1 Round the following two decimal places

The answer must have exactly two places behind the decimal point.

Use the Five or more rule goes up when determining what the number in the hundredths column should actually be.

- |   |         |   |           |   |           |   |           |
|---|---------|---|-----------|---|-----------|---|-----------|
| a | 37.2918 | b | 1741.8291 | c | 8913      | d | 89.9281   |
| e | 93      | f | 154.02949 | g | 893.00988 | h | -948.9088 |

## Q2 Round a number to two significant figure

The answer must have a maximum of two digits that are not zero.

49,982 would round up to 50,000 and only having one none zero digit is fine.

- |   |          |   |         |   |          |   |           |
|---|----------|---|---------|---|----------|---|-----------|
| a | 7483     | b | 83.0291 | c | 90.18    | d | 0.000281  |
| e | 0.000397 | f | 938     | g | 4291.903 | h | 831.91999 |

## Q3 Calculate the maximum and minimum speeds for a journey

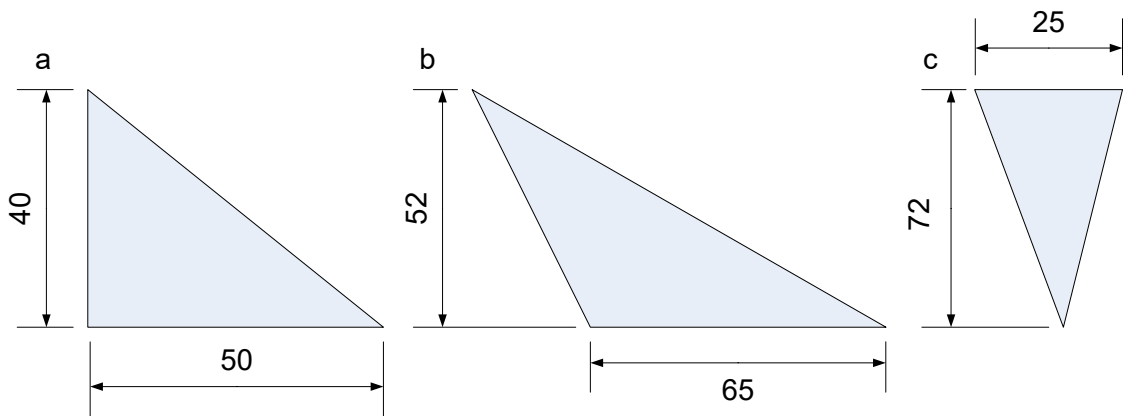
$$\text{Maximum speed} = \frac{UB \text{ Distance}}{LB \text{ Time}} \quad \text{Minimum Speed} = \frac{LB \text{ Distance}}{UB \text{ Time}}$$

Make the error interval :  $\text{Minimum speed} \leq \text{Speed} < \text{Maximum Speed}$

- a A car travels 90 miles (rounded to the nearest mile) in 110 minutes (rounded to the nearest minute). Write the error interval of the speed of the car. Give the speeds in miles per hour.
- b A train travels 240 miles (rounded to the nearest mile) in 125 minutes (rounded to the nearest minute). Write the error interval of the speed of the train. Give the speed in miles per hour.
- c An aircraft flies 9700 miles (rounded to the nearest 100 miles) in 14 hours 30 minutes (rounded to the nearest 10 minutes). Write the error interval of the aircraft. Give the speed in miles per hour.

**Q4 Calculate the area of the following shapes**

*Area of a triangle =  $\frac{1}{2} \times \text{base} \times \text{perpendicular height}$*

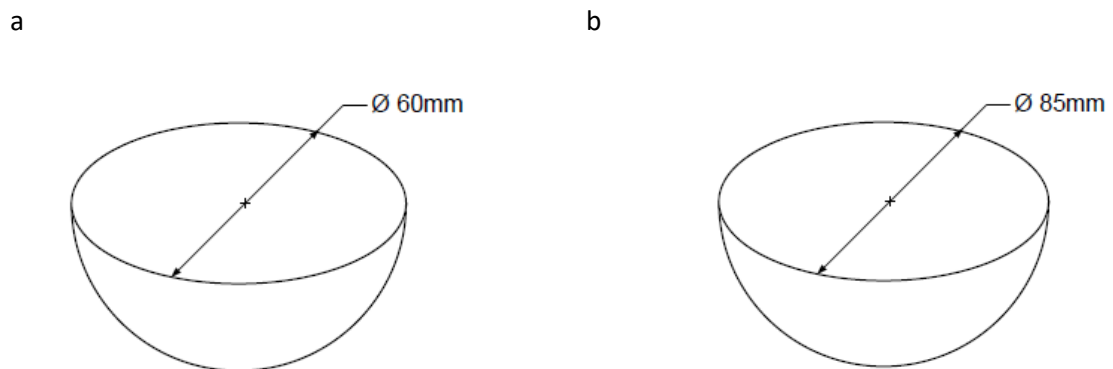


All dimensions are given in cm. All measurements have been rounded to the nearest whole number.

**Q5 Calculate the volume of the following shapes.**

*Volume of a hemisphere =  $\frac{2}{3} \pi r^3$*

Find the bounds of the diameter first and then halve them to find the bounds of the radius.



The diameters have been rounded to two significant figures.

**Extension Task**

St James Park seats 52,300 people rounded to the nearest 10. The cost of a season ticket rounded to the nearest £10 is £830. Thirty five percent of the stand are season ticket holders. Ten percent of the people in the seats pay £420 (rounded to the nearest £5) for hospitality tickets. The remainder pay £180 (rounded to the nearest £10) for their seat in the ground. Assuming ten games are played this way, how much are the takings at the gate? (Season ticket holders only pay once. All percentages are rounded to the nearest percent).