

**ACTION**

**RESPONSE**

For each section, give the upper & lower bound for each question:

**Fluency**  


- |                         |                                |
|-------------------------|--------------------------------|
| 1. 82 (nearest integer) | 5. $31 + 54$ (nearest integer) |
| 2. 35 (nearest 5)       | 6. $4.6 \times 7.3$ (1 d.p.)   |
| 3. 4 (1 sig. fig.)      | 7. $680 - 170$ (2 s.f.)        |
| 4. 6.7 (1 d.p.)         | 8. $8.43 \div 2.92$ (2 d.p.)   |

**Reasoning**  


1. A rectangular field has dimensions 42m by 135m. If both measurements are correct to the nearest metre, calculate the upper and lower values for the area of the field.
2. A can holds 330ml measured to the nearest ml. If I have bought a jug that holds 2 litres correct to the nearest 10ml, will a six pack of cans fit in without spilling over?

**Problem Solving**  


A ball is thrown vertically upwards with a speed  $u \text{ ms}^{-1}$ . The Height,  $H$ , to which it rises can be calculated using the formula:  $H = \frac{u^2}{2g}$ , where  $g$  is the acceleration due to gravity.

Calculate the highest and lowest height achieved if  $u = 17.4 \text{ ms}^{-1}$  correct to 3 significant figures and  $g = 9.8 \text{ ms}^{-2}$  correct to 2 significant figures.



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