**End of Unit Test** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Calculations and Accuracy - HIGHER**

**Q1.** Use approximations to estimate the value of   

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Answer ......................................................................

**(Total 3 marks)**

**Q2.** Use approximations to estimate the value of           

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Answer ......................................................................

**(Total 2 marks)**

**Q3.** *x* = 400 to 1 significant figure.

*y* = 25 to 2 significant figures.

Work out the maximum **integer** value of  

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Answer ......................................................................

**(Total 3 marks)**

**Q4.** Luke has a rectangular garden. The length is 40 m. The width is 25 m. Both measurements are given to the nearest metre.

Mira also has a garden. The area is 970 m2 to the nearest 10 m2. Mira thinks her garden has a bigger area.

Is she correct? Tick a box. You **must** show your working.

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| --- | --- | --- | --- | --- | --- | --- |
|  | Correct |  | Incorrect |  | Cannot tell |  |

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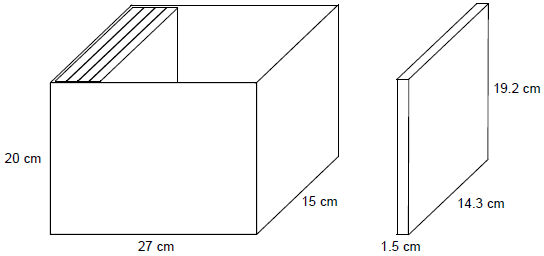
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**(Total 3 marks)**

**Q5.** A box is a cuboid with dimensions 27 cm by 15 cm by 20 cm. These dimensions are to the

nearest **centimetre**. DVD cases are cuboids with dimensions 1.5 cm by 14.3 cm by 19.2 cm. These dimensions are to the nearest **millimetre**.



Show that 17 DVD cases, stacked as shown, will definitely fit in the box.

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**(Total 4 marks)**

**Q6.** The maximum safe load of a bridge is 1500 kg to the nearest 10 kg. An average soldier is 75 kg to the nearest kilogram. Work out an estimate for the maximum number of soldiers that can **safely** cross the bridge at the same time.

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Answer ......................................................................

**(Total 5 marks)**

**(Total for test = 20 marks)**