| Number - approximation | upper & lower bounds | question sheet N-A-ULB01 |
|---|---|-------------------------------------|
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| 1. write down the upper and lo | wer bounds of the following me | acsemathstutor easurements: |
| (a) 121 mm correct to the r | nearest mm | |
| (b) 345.2 mm correct to the | e nearest 0.1 mm | |
| (c) 987 cm correct to the ne | earest cm | |
| (a) 1022.4 km connect to the hel | a poorest 0,1 kg | |
| (e) 1023.4 kg correct to th | e nearest 0.1 kg | |
| 2. What is the smallest and largest area of a rectangle with the measurements below, given that the accuracy is to the nearest cm (answer to 2 decimal places). | | |
| (a) 2 x 8 | (b) 4 x 1 | (c) 3 x 6 |
| (d) 11 x 12 | (e) 15 x 9 | (f) 22 x 13 |
| 3. Circles are inscribed to an ad for circles with the following (answer to 2 decimal places) | ccuracy of 0.1 cm What are the g radii? All measurements are in | e smallest and largest areas and CS |
| wv(a) 1.1csemaths | Stute (b) 5.6 Om ~ G | CSE (c) 9.2 ths Tuto |
| (d) 10.3 | (e) 3.2 | (f) 7.7 |

4. The base and height of triangles are measured to within 0.1 mm What are the smallest & largest areas of triangles with the heights and bases given. All measurements are in mm (answer to 2 decimal places) útor∼ www.ac (a) 11.2, 1.3 (b) 4.1 , 1.2 (c) 1.7, 3.2 (d) 5.1, 6.9 (f) 11.9, 23.3 (e) 8.7 , 9.1

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 upper & lower bounds
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- (a) 121.5 m.m.^2 , 120.5 m.m.^2
- (b) 345.25 m.m.², 345.15 m.m.²
 - (c) 987.5c.m., 986.5c.m.
- ath (d) 54.5k.m., CO 53.5k.m. CSE Maths Tutor~ www.gc
 - (e) 1023.45k.g., 1023.35k.g.

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2.

(a) 11.25 c.m.^2 , 21.25 c.m.^2 (b) 1.75 c.m.^2 , 6.75 c.m.^2 (c) 13.75 c.m.^2 , 22.75 c.m.^2

(d) 120.75 c.m.^2 , 143.75 c.m.^2 (e) 123.25 c.m.^2 , 147.25 c.m.^2 (f) 268.75 c.m.^2 , 303.75 c.m.^2

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 - 3. (a) 3.46c.m.², 4.15c.m.² (b) 96.77c.m.², 100.29c.m.² (c) 263.02c.m.², 268.80c.m.² (d) 330.06c.m², 336.54c.m.² (e) 31.17c.m.², 33.18c.m.² (f)183.85c.m.², 188.69c.m.²

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(a) 6.97 m.m.^2 , 7.59 m.m.^2 (b) 2.33 m.m.^2 , 2.59 m.m.^2 (c) 2.60 m.m.^2 , 2.84 m.m.^2

(d) 17.30 m.m.^2 , 17.90 m.m.^2 (e) 39.14 m.m.^2 , 40.03 m.m.^2 (f) 137.76 m.m.^2 , 139.52 m.m.^2

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