

Limits of Accuracy



- i. An integer n is rounded to the nearest 1000. After rounding, the number is 6000.**
- What is the highest possible value of n ?
 - What is the lowest possible value of n ?
- ii. For each of the numbers below, give the error interval due to rounding. Give your answer in inequality notation.**
- 4561.2 after rounding to 1 d.p.
 - 149.12 after rounding to 2 d.p.
 - 65 after rounding to 0 d.p.
 - 1012.1 after rounding to 1 d.p.
 - 1000.00 after rounding to 2 d.p.
- iii. For each of the numbers below, give the error interval due to truncation. Give your answer in inequality notation.**
- 1230 after truncation to 3 s.f.
 - 120 after truncation to 2 s.f.
 - 5000 after truncation to 1 s.f.
 - 400 after truncation to 2 s.f.
 - 1256.2 after truncation to 5 s.f.
- iv. Jasmine measures the length of a table using a tape measure. The tape measure only has gradations to 1 cm accuracy. According to the tape measure, the table was 145 cm long. What is the range of possible lengths that the table actually was?**
- v. Anil calculates the area of a square paving slab as 110.25 cm^2 . The ruler he was using to measure the square only has 1mm gradations. What is the range of possible areas that the paving slab actually was?**