1:09 | Approximation

Examples

1 Write 95 463·5 correct to the nearest:
   a hundred   b ten   c integer

   Solution
   a 4 is in hundreds place.   b 6 is in tens place.   c 3 is in integer place.
      Next digit is 6   Next digit is 3   Next digit is 5.
      (which is 5 or more).   (which is less than 5).   ∴ Round up the 3 to 4.
      ∴ Round up the 4 to 5.   ∴ Leave the 6.   ∴ 95 464
      ∴ 95 500   ∴ 95 460

   OR a Think 'Which hundred is 463·5 closest to?' → 500
              ∴ 95 500

2 Round off 8·738 to:
   a 1 decimal place   b 2 decimal places

   Solution
   a 7 is in first decimal place.   b 3 is in second decimal place.
      3 is next digit.   8 is next digit.
      ∴ Leave the 7.   ∴ Round up the 3 to 4.
      ∴ 8·7   ∴ 8·74

Exercise

1 Write 7463·9 to the nearest:
   a integer   b ten   c hundred

2 Write 6·4937 correct to:
   a 3 decimal places   b 2 decimal places   c 1 decimal place

3 Write 4856·39 correct to the nearest:
   a hundred   b ten   c integer

4 Round off 15·5751 correct to:
   a 1 decimal place   b 2 decimal places   c 3 decimal places

5 Write 65 927 correct to the nearest:
   a ten   ·b hundred   c thousand

6 Round off 68·934 correct to:
   a the nearest whole b 1 decimal place   c 2 decimal places

7 Write 0·854 73 correct to:
   a 2 decimal places   b 4 decimal places   c 1 decimal place

8 Round off 84 306·8 to the nearest:
   a integer   b ten   c hundred

1:09 Approximation

1 a 7464   b 7460   c 7500   2 a 6·494   b 6·49   c 6·5
3 a 4900   b 4860   c 4856   4 a 15.6   b 15·58   c 15·575
5 a 65 930   b 65 900   c 66 000   6 a 69   b 68·9   c 68·93
7 a 0·85   b 0·8547   c 0·9   8 a 84 307   b 84 310   c 84 300