Level 2 Functional Skills Maths Knowledge Organiser

Module 7 – Estimating and Approximating

Non Calculator

Decimal Place

4.32567

The first number after the decimal point is called the first decimal place.

Each number has a position after the decimal point. 6 is the 4th number after the decimal point so 6 is in the 4th decimal place.

Rounding to nearest 10

Round 3347 to the nearest 10.

3347

When rounding to the nearest 10, the number in the units column is the decider number **Common Mistake**

Remember to have a zero in the units column. 3347 = 3350 to the nearest 10, not 335.

The decider number is 7, which means we round the tens number up to a 5

3347 = 3350 rounded to the nearest 10.

Rounding to nearest 100

Round 62347 to the nearest 100.

623<mark>47</mark>

When rounding to the nearest 100, the number in the tens column is the decider number

The decider number is 4, which means we leave the 3 as it is.

62347 =62300 rounded to the nearest 100

Approximating calculations

Approximate $\frac{39.46\times1.98}{10.13}$

Round each number to the nearest whole number, 10 or 100 — whichever is appropriate.

$$\frac{39.46 \times 1.98}{10.13} \approx \frac{40 \times 2}{10} = \frac{80}{10} = 8$$

Rounding to a given number of Decimal Places

Round 7.32571 to 3 decimal places

7.32571

When rounding to 3 decimal places, the number in the 4th decimal place is the decider number.

The decider number is 7, which means we round the number in the 3rd decimal place up to a 6.

9 If the decider number is 5, 6, 7, 8, 9 you round up.

If the decider number is 0, 1, 2, 3, 4 you round down.

7.32571 = 7.326 to 3 decimal places

Rounding to nearest whole number

Round 432.67 to the nearest whole number.

432.67

When rounding to the nearest whole number, the number in the first decimal place is the decider number

The decider number is 6, which means we round the unit number up to a 3

If the decider number is 5, 6, 7, 8, 9 you round up.

If the decider number is 0, 1, 2, 3, 4

you round down.

432.67 = 433 to the nearest whole number

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Place Value

When Rounding and Approximating, it is very important to remember the place value for each column.

4th decimal place
3rd decimal place
2nd decimal place
1st decimal place
1,756.3245

Units
Tens
Hundreds
Thousands