Rounding: flowchart

Planner week 4 · What does it say to round to? Follow the arrows

A rounding question

What does it say to round to?
find the last digit you keep, then look at the next one

Nearest | d.p. | s.f.

NEAREST 10, 100, 1000

Round 8375 to the nearest thousand.

1. The thousands digit is 8
2. Next digit is 3: less than 5, the 8 stays
3. = **8000**

✓ fill the other places with zeros

DECIMAL PLACES

Round 3.4762 to 2 decimal places.

1. Count 2 digits after the point: 3.47
2. Next digit is 6: 5 or more, round up
3. = **3.48**

✓ count after the point

SIGNIFICANT FIGURES

Round 87 569 to 3 significant figures.

1. Count from the first non-zero digit: 875
2. Next digit is 6: round up to 876
3. Fill with zeros: **87 600**

✓ it stays about 87 thousand

Does it say 'estimate'?

No → **Calculator?** write every figure, then round

Yes

Round every number to 1 s.f. first, and write it down
$5.7 \times 8.2 \div 0.26 \rightarrow 6 \times 8 \div 0.3 = 48 \div 0.3 =$ **160**

The big question

What does it say: nearest **10, 100, 1000**, **decimal places** or **significant figures**?

Next digit 5 or more → round up.

Watch out

- Leaving off the zeros (8 instead of 8000).
- Rounding in two steps: 19.49 → 19.5 → 20 is wrong.
- Counting the zeros at the front of 0.0874 as significant.
- Estimates: round 0.26 to 0.3, not 0.