

Place value problem-solving and review

MODULE 1 · PLACE VALUE, DECIMALS AND THE NUMBER SYSTEM NUMBER

Pull it together: **read, round, compare and convert** numbers — whole and decimal, positive and negative — inside word problems.

HTh	TTh	Th	H	T	U

→ Ask: what place is each digit? Does my estimate match my exact answer?

HOW TO ANSWER TODAY

- **Decimal places.** Tenths is the first digit after the point, hundredths the second, thousandths the third.
In 4.82 the digit in the tenths place is 8. · In 0.345 the hundredths digit is 4.
- **Round to nearest....** Look at the digit ONE place to the right of where you're rounding to. 5 or more → round up; less than 5 → keep.
7.34 to nearest tenth → 7.3 (the 4 is less than 5). · 7.36 → 7.4.
- **Compare or order.** Compare one place at a time, starting from the LEFT. Use < (less than), > (greater than), or = (equal).
3.45 < 3.54 · Smallest → largest: 0.7, 0.71, 1.07

WARM-UP

- a. In 2.9, which digit is in the tenths place
- b. In 8.5, which digit is in the tenths place
- c. In 1.3, which digit is in the tenths place
- d. In 2.9, which digit is in the tenths place

PRACTICE

- 1 At the Saturday farmers' market in Galway, the stallholder weighs a bag of potatoes and the scales show **95.31 kg** of spuds sold by lunchtime. She wants to write the total on her board to the nearest tenth of a kilogram. What does she write?
Round 95.31 to the nearest tenth.
- 2 The 5th class fundraiser raised **€24.28** at Monday's bake sale and **€58.70** at Friday's cake sale in the school canteen. How much money did the class raise in total?
 $24.28 + 58.7 = ?$

ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Mark A, S or N — be ready to explain.

- a. Writing a zero to the right of a decimal (0.5 → 0.50) changes its value.
- b. A number with more digits is greater than one with fewer digits.
- c. Rounding a number makes it smaller.
- d. A negative number is less than every positive number.
- e. Multiplying a whole number by 100 moves its digits two places to the left.
- f. The further right a number is on the number line, the greater it is.

REFLECT

Which is trickier to compare — large whole numbers or decimals? Why?