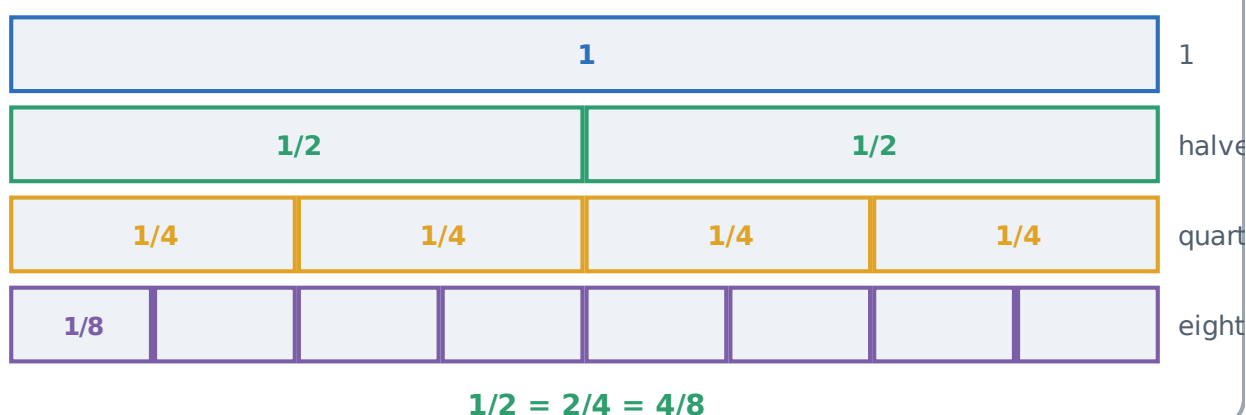


Calculating with Number — Practice Worksheet

Part A — Whole numbers, fractions & decimals

This lesson spans several calculation skills. Use flexible, efficient strategies rather than always reaching for the standard algorithm. For fractions with **related denominators**, rename one fraction so both match — the fraction wall shows which fractions line up.

Fraction Wall (related denominators)



Use the wall to find equivalent fractions before adding.

Worked example — related denominators. $\frac{1}{2} + \frac{1}{4}$: rename $\frac{1}{2}$ as $\frac{2}{4}$ (see the wall), then $\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$.

Worked example — decimals. $3.40 + 1.75$: line up the points and add place by place $\rightarrow 5.15$.

Whole-number strategies

Q1. Use a mental strategy and name it: (a) $47 + 38$ (b) $124 - 59$ (c) 8×25 (d) $96 \div 4$

Q2. Show the order of operations: $6 + 3 \times (10 - 4)$.

Fractions with related denominators

Q3. Use the fraction wall to rename first, then add or subtract:

(a) $\frac{1}{2} + \frac{1}{4}$ (b) $\frac{3}{4} - \frac{1}{8}$ (c) $\frac{2}{3} + \frac{1}{6}$

Decimals to 2 dp

Q4. (a) $3.40 + 1.75$ (b) $6.20 - 2.85$ (c) $0.9 + 0.45$

Part B — Decimals, percentages of a quantity & estimation

When we multiply or divide by powers of 10, the **digits shift** place value — they do not just "gain a zero". **Estimation** and rounding let us check whether an answer is reasonable before trusting it.

Worked example — percentage of a quantity. 25% of $40 = \frac{1}{4} \times 40 = 10$. Estimate-check: a quarter of 40 is 10 — reasonable. ✓

Watch out. 3.7×10 is **37**, not 3.70. Multiplying by 10 moves every digit one place to the left.

Multiplying decimals & powers of 10

Q1. (a) 0.6×4 (b) 1.25×3 (c) 3.7×10 (d) $45.0 \div 10$ (e) $2.5 \div 100$

Fraction / decimal / percentage of a quantity

Q2. Find: (a) $\frac{1}{4}$ of 60 (b) 0.5 of 18 (c) 10% of 250 (d) 25% of 40 (e) 50% of 92

Estimation & rounding

Q3. Estimate first (round sensibly), then calculate and compare:

(a) $297 + 412$ (b) 19×21 (c) 6.1×4.9

Q4. A shirt costs \$24.95. Estimate the cost of 3 shirts, then find the exact total.

Reasoning

Q5. Maya says $3.7 \times 10 = 3.70$. Is she right? Explain what really happens to the digits.
