

MATH · Y6 / GRADE 6

Y6 SATs Arithmetic

Every question type, every strategy

About the Arithmetic paper

Whole-number calculations (Q1-Q12 typically)

Question type	What it looks like	Strategy
Addition (single)	$542 + 387 =$	Column method, line up place value
Subtraction (single)	$703 - 248 =$	Column method, exchange (borrow) carefully
Long multiplication	$47 \times 23 =$	Grid method or formal long multiplication
Long division	$672 \div 4 =$	Bus stop method; check remainder
Multi-step	$245 + 87 - 132 =$	Work left to right; double-check each step
Times tables	$8 \times 7 =$	Recall facts; if unsure, use grid



Question type	What it looks like	Strategy
Inverse operation	$\blacksquare + 245 = 612$	Subtract from total
Place value swap	$10 \times 4.7 =$	Move digits 1 left; not the decimal
Multiples of 10/100/1000	$650 \times 100 =$	Add zeros; or shift place value
Order of operations	$5 + 3 \times 4 =$	BIDMAS — multiplication before addition

Fractions (Q13-Q20 typically)

Question type	Example	Strategy
Adding fractions same denominator	$1/5 + 2/5 =$	Add numerators, keep denominator
Adding mixed denominators	$1/3 + 1/4 =$	Find common denom; convert; add
Subtracting mixed numbers	$2 \frac{1}{2} - 3/4 =$	Convert to improper; subtract; convert back
Multiplying fractions	$2/3 \times 1/4 =$	Multiply numerators \times numerators, denominators \times denominators
Dividing fractions	$3/4 \div 1/2 =$	KFC: Keep, Flip, Change \div to \times
Fraction of amount	$3/4$ of 80 =	\div by denominator, \times by numerator
Equivalent fractions	$4/12 = ?/3$	Simplify by dividing
Mixed to improper	$2 \frac{3}{5} \rightarrow ?/5$	Multiply whole by denom, add numerator

Decimals & percentages (Q21-Q26 typically)

Question type	Example	Strategy
Multiplying decimals by integer	$2.4 \times 5 =$	Treat as whole number then place decimal
Multiplying decimals by 10/100	$0.34 \times 100 =$	Move digits left (NOT decimal point right)



Question type	Example	Strategy
Dividing decimals	$8.4 \div 4 =$	Bus stop, keep decimals lined up
Percentage of amount	25% of 60 =	\div by 4 (quarter); or \div 100 then \times 25
Percentage to decimal	37% as decimal =	Divide by 100
Decimal to fraction	0.75 as fraction =	Tenths/hundredths/thousandths place

Powers & advanced (Q27-Q30 typically)

Question type	Example	Strategy
Squaring	$8^2 =$	Multiply by itself
Cubing	$4^3 =$	Multiply by itself twice
Square root	$\sqrt{64} =$	Find what \times itself = 64
Mixed BIDMAS	$(8 + 2) \times 3 =$	Brackets first, then multiply

Strategy — using all 30 minutes well

What to do during the test

- Read each question CAREFULLY — many marks lost to misreading
- If stuck on a question, MARK IT and move on — don't lose 5 minutes
- Check answers fit the question (e.g. age can't be 200)
- Show working for any question you're not 100% sure of
- Watch for 'units' (cm vs m, g vs kg, p vs £) — convert if needed
- Use any leftover time to CHECK from the start — don't sit and wait



- Don't second-guess obvious answers — first instinct is usually right

