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Quick-reference sheets

Use these pages to revisit methods before trying the questions.

Number & Place Value

Columns, rounding and the number families you must recognise.

Reading whole numbers & decimals

Place value of each digit in 1234.56

Th	H	T	U	.	t	h
1	2	3	4	.	5	6

In **1234.56** the digit **3** means 3 **tens** (30) and the digit **5** means 5 **tenths** (0.5). Columns get 10× bigger to the left and 10× smaller to the right.

Rounding

METHOD Rounding to a given place value

1. Underline the digit in the place you are rounding to.
2. Look at the **next digit to the right** only.
3. If it is 5 or more, round **up**; if it is 4 or less, round **down**.
4. Replace the digits after your place with zeros (or drop them after a decimal).

Example: 476 to the nearest ten → next digit is 6 → round up → **480**.

Special numbers

Special numbers (learn these by heart)

	1st	2nd	3rd	4th	5th	6th	7th	8th
Square	1	4	9	16	25	36	49	64
Cube	1	8	27	64	125	216	343	512
Triangular	1	3	6	10	15	21	28	36
Prime	2	3	5	7	11	13	17	19

What they mean

Square = a number × itself ($n \times n$). **Cube** = $n \times n \times n$. **Triangular** = 1+2+3+... (add the next counting number each time). **Prime** = exactly two factors, 1 and itself (1 is **not** prime; 2 is the only even prime).

1. Four Operations

Work through each level. Circle A-E and show your working.

Beginner - Ages 9–10

Question 1

Tom buys 3 apples at 40p each and one banana for 30p. He pays with a £2 coin (200p). How much change should he get?

- A. 130p
- B. 150p
- C. 350p
- D. 80p
- E. 50p



Question 2

A baker has 74 bread rolls. She packs them into bags of 6, filling as many whole bags as she can. How many rolls are left over?

- A. 2
- B. 8
- C. 12
- D. 6
- E. 14



Question 3

A theatre labels each row with a letter and each seat with a number. Row D has seats 1 to 12. Seats 4 to 7 inclusive are reserved. How many seats in row D are NOT reserved?

- A. 7
- B. 4
- C. 8
- D. 5
- E. 9



Question 4

There are 18 cards showing red faces and 12 showing blue faces. Every card is red on one side and blue on the other. Seven of the red cards and four of the blue cards are turned over. How many cards now SHOW BLUE?

- A. 8
- B. 30
- C. 15
- D. 19
- E. 23

Question 5

Machine A adds 8 and then multiplies by 6. Machine B multiplies by 6 and then adds 8. Both receive 4. How much GREATER is A's output than B's?

- A. 6
- B. 8
- C. 72
- D. 32
- E. 40

Question 6

A café makes 4 pots of tea holding 5 cups each and 3 pots of coffee holding 4 cups each. How many cups can be poured altogether?

- A. 32
- B. 31
- C. 20
- D. 27
- E. 63

Question 7

A recipe for 4 people needs 6 eggs. Priya makes the recipe for 12 people, but then puts 2 eggs back to save for baking. How many eggs does she use?

- A. 20
- B. 18
- C. 10
- D. 16
- E. 12

Practice Test 1

Five warm-ups (P1-P5), then 25 questions. Mark one answer A-E for each.

Before you start

The questions in this test do not get steadily harder from start to finish. The difficulty rises and falls — a tough question is often followed by a much easier one, and some of the quickest marks come near the end.

So if you hit a hard question, do not panic. The next one may well be easier. Move on and come back to it.

And if a question near the end looks easy, it is not a trick. It probably is easy. Take the mark and keep going.

Take your time on the early questions. Those are marks you should not drop.

Warm-up questions

P1

$$8 \times 7 =$$

- A. 15
- B. 48
- C. 56
- D. 63
- E. 54

P2

In the number 4,703, what is the value of the digit 7?

- A. 7,000
- B. 70,000
- C. 700
- D. 70
- E. 7

P3

What is the best estimate for the height of a classroom door?

- A. 2 cm
- B. 20 m
- C. 2 km
- D. 2 m
- E. 20 cm

P4

Pencils cost 35p each. How much do 4 pencils cost altogether?

- A. 140p
 - B. 39p
 - C. 175p
 - D. 120p
 - E. 105p
-

P5

The table shows how many goals five teams scored last season. Which team scored the fewest goals?

Team	Goals scored
Lions	24
Rovers	31
Eagles	19
Swifts	27
Hawks	22

- A. Eagles
 - B. Swifts
 - C. Hawks
 - D. Lions
 - E. Rovers
-

1. Four Operations

Beginner · Ages 9–10

Question	Answer
1	E
2	A
3	C
4	C
5	E
6	A
7	D
8	E
9	A
10	E
11	B
12	A
13	A
14	E
15	A

Intermediate · Ages 10–11

Question	Answer
1	B
2	E
3	E
4	A
5	D
6	A
7	A
8	D
9	B
10	E
11	B
12	D
13	C
14	E
15	E

Advanced · Ages 11–12

Question	Answer
1	C
2	B
3	B
4	A
5	E
6	B
7	D
8	C
9	E
10	B
11	A
12	B
13	E
14	D
15	C

