



Test Papers
Hub.

NSW Opportunity Class Practice Paper 1

Mathematical Reasoning

35 questions · 5 options each (A–E) · 40 minutes · No calculator

How to use this booklet

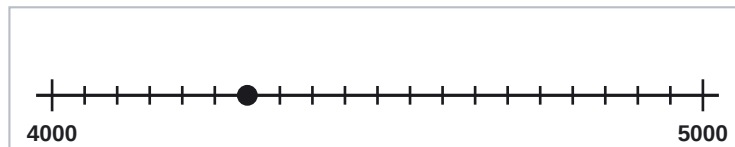
- There are 35 questions in this paper. For each question there are five possible answers, A, B, C, D and E. Choose the one correct answer.
- You will not lose marks for incorrect answers, so attempt all 35 questions.
- Calculators are not allowed. You have 40 minutes. You may do rough working on the paper.

MATHEMATICAL REASONING — 35 QUESTIONS

Multiple choice · 40 minutes

Work through the questions in order, but do not spend too long on any one. Mark your best answer for every question, then check your work against the worked solutions.

1. What number is the dot showing on this number line? (The line goes from 4000 to 5000 and is marked in equal steps.)



- A 4250
- B 4300
- C 4350
- D 600
- E 4600

2. Omar rounds 92,854 to the nearest hundred. Gus rounds the same number to the nearest thousand. What is the difference between their answers?

- A 46
- B 146
- C 900
- D 150
- E 100

3. What number is equal to $7 \times 1000 + 7 \times 10,000 + 8 \times 10 + 4 + 3 \times 100$?

- A 73,384
- B 77,384
- C 77,834
- D 48,377
- E 77,474

4. A garden has 11 rows of 6 plants. 15 plants are taken away. The rest are put into new rows of 3. How many new rows are there?

- A 22
- B 17
- C 51
- D 18
- E 27

5. Which digit goes in the box to make this number sentence true? $9\Box7 \times 7 = 6629$

- A 5
- B 6
- C 9
- D 4
- E 3

6. I am a 3-digit number. It is not a multiple of 5. Its hundreds digit is 8. It is even. The hundreds digit is the same as the tens digit. The sum of its digits is 20. What number am I?

- A 848
- B 884
- C 992
- D 882
- E 888

7. Ben has 97 stickers to share equally among 5 friends. Ben buys the smallest number of extra stickers so that all the stickers can be shared equally with nothing left over. How many extra stickers does Ben buy?

- A 8
- B 2
- C 19
- D 20
- E 3

MATHEMATICAL REASONING — 35 QUESTIONS

Answers & worked solutions

Answer Key

1	B	2	E	3	B	4	B	5	D	6	B
7	E	8	C	9	B	10	D	11	D	12	E
13	B	14	C	15	C	16	A	17	E	18	C
19	E	20	A	21	E	22	D	23	D	24	A
25	D	26	A	27	D	28	B	29	A	30	C
31	A	32	C	33	C	34	A	35	E		

1. What number is the dot showing on this number line? (The line goes from 4000 to 5000 and is marked in equal steps.) [Number lines]



Correct answer: B — 4300

- The line from 4000 to 5000 is split into 20 equal steps, so each step is $(5000 - 4000) \div 20 = 50$.
- The dot is 6 steps from 4000, so it shows $4000 + 6 \times 50 = 4300$.
- Why the other options are wrong:
 - A (4250): This is the previous mark: count the steps again from the left.
 - C (4350): This is the next mark: count the steps again from the left.
 - D (600): This counts the steps in hundreds instead of working out the size of one step.
 - E (4600): This reads the steps as tenths of the whole line, but there are 20 equal steps.

LOS: MR1

KEY TAKEAWAY

Work out the size of ONE step first (distance $\div$ number of steps), then count steps from a known mark.

2. Omar rounds 92,854 to the nearest hundred. Gus rounds the same number to the nearest thousand. What is the difference between their answers? [Rounding]

Correct answer: E — 100

- Round 92,854 to the nearest hundred: look at the digit to the right of the hundred place. That gives 92,900.
- Round 92,854 to the nearest thousand: that gives 93,000.
- Difference = $93,000 - 92,900 = 100$.
- Why the other options are wrong: