

# EduTest Year 8 Entry Practice Paper 1

Mathematics

**60 questions · 4 options each (A–D) · 30 minutes · No calculator**

## How to use this booklet

- There are 60 questions in this section. For each question there are four possible answers, A, B, C and D. Choose the one correct answer.
- This is an achievement test on the school curriculum: number, measurement, algebra, space and data. Use rough paper for working.
- Calculators are not allowed. You have 30 minutes. You will not lose marks for wrong answers, so attempt every question.

# MATHEMATICS — 60 QUESTIONS

Multiple choice · 30 minutes

Work through the questions in order. If a question stalls you, move on and come back. Then check your work against the worked solutions.

1. Write  $2\frac{2}{9}$  as an improper fraction.

- A  $\frac{20}{2}$
- B  $\frac{13}{9}$
- C  $\frac{4}{9}$
- D  $\frac{20}{9}$

2. Ivan has 3 bags. Each one holds 19 coins. How many coins are there altogether?

- A 57
- B 38
- C 76
- D 22

3. A circular pond with a radius of 4 meters is surrounded by a path 3 meters wide. What is the area of the path alone, in square meters?

- A  $9\pi$
- B  $33\pi$
- C  $6\pi$
- D  $49\pi$

4. What value of  $x$  satisfies  $4x + 2 = 2x - 8$ ?

- A -5
- B  $-\frac{5}{3}$
- C -1
- D 5

**5. Fay buys 10 packs of shells. Each pack has 8 shells. Then Fay gives away 27. How many shells does Fay have left?**

- A 61
- B 107
- C 53
- D 45

**6. Dev buys 5 toys that cost \$17 each and pays with a \$100 note. How much change does Dev get?**

- A \$83
- B \$185
- C \$85
- D \$15

**7. A jacket originally priced at \$150 is discounted by 10%. The sale price is then discounted by a further 20%. What is the final price, in dollars?**

- A \$135.00
- B \$108.00
- C \$105.00
- D \$115.00

**8. There are 12 rows of tiles with 10 in each row. How many tiles are there?**

- A 22
- B 120
- C 130
- D 110

**9. A prize of \$21 is divided between two people in the ratio 2 : 5. What is the larger share, in dollars?**

- A 15
- B 3
- C 10
- D 6

# MATHEMATICS — 60 QUESTIONS

Answers & worked solutions

## Answer Key

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| 1 D  | 2 A  | 3 B  | 4 A  | 5 C  | 6 D  |
| 7 B  | 8 B  | 9 A  | 10 B | 11 C | 12 D |
| 13 C | 14 D | 15 C | 16 A | 17 D | 18 C |
| 19 B | 20 C | 21 C | 22 B | 23 A | 24 A |
| 25 B | 26 C | 27 D | 28 B | 29 C | 30 A |
| 31 D | 32 D | 33 C | 34 A | 35 A | 36 D |
| 37 A | 38 B | 39 C | 40 D | 41 D | 42 C |
| 43 C | 44 A | 45 C | 46 B | 47 B | 48 D |
| 49 B | 50 D | 51 A | 52 A | 53 B | 54 D |
| 55 A | 56 C | 57 B | 58 D | 59 A | 60 B |

1. Write  $2\frac{2}{9}$  as an improper fraction. [Fractions]

Correct answer: D —  $\frac{20}{9}$

- Whole  $\times$  bottom:  $2 \times 9 = 18$ .
- Add the top:  $18 + 2 = 20$ .
- The bottom stays 9:  $\frac{20}{9}$ .
- Why the other options are wrong:
  - A ( $\frac{20}{2}$ ): The denominator stays the same.
  - B ( $\frac{13}{9}$ ): Whole  $\times$  denominator, then add the top.
  - C ( $\frac{4}{9}$ ): Multiply the whole number by the denominator first.

LOS: Mathematics: fractions

### KEY TAKEAWAY

Mixed to improper: (whole  $\times$  denominator + numerator) over the same denominator.

2. Ivan has 3 bags. Each one holds 19 coins. How many coins are there altogether?  
[Multiplication]

Correct answer: A — 57

- There are 3 equal groups with 19 in each, so we MULTIPLY.
- $3 \times 19$
- Split 19 into tens and ones:  $3 \times 10 = 30$  and  $3 \times 9 = 27$ .
- Add:  $30 + 27 = 57$ .