

## Sutton Selective Eligibility Test (SET) — Style Practice

# Mathematics

MULTIPLE-CHOICE PAPER · PRACTICE PAPER 3

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|                     |                        |
|---------------------|------------------------|
| Time allowed        | 50 minutes             |
| Number of questions | 58                     |
| Total marks         | 58                     |
| Equipment           | Pencil and eraser only |

### Candidate details

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Name: \_\_\_\_\_

School: \_\_\_\_\_ Date: \_\_\_\_\_

### Instructions to candidates

1. Do not open this booklet until you are told to do so.
2. Write your name, school and the date in the spaces on this cover.
3. This paper has 58 questions. You have 50 minutes.
4. Each question has five answers, labelled **A** to **E**. Choose the **one** best answer.
5. Mark your answer by filling the matching **lozenge** on the Answer Sheet at the back of the booklet.
6. Use a pencil. To change an answer, rub it out fully and fill your new lozenge.
7. You may do rough working in the space beside each question. Calculators are not allowed.
8. If a question is difficult, leave it and come back to it later. Try to answer every question.

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO BEGIN**

# Mathematics

Answer all 58 questions. Choose the one best answer for each and fill it on the Answer Sheet at the back.

## Example

X. What is  $24 \div 4$ ? A 4 B 5 C 6 D 7 E 8

The answer is 6 (answer C), so you would fill lozenge C: (A) (B) (C) (D) (E)

- 1 What is the value of the digit 7 in the number 5.872?
 

A 0.7 (seven tenths)  
 B 0.07 (seven hundredths)  
 C 0.007 (seven thousandths)  
 D 7  
 E 70
- 2 Round 36,749 to the nearest hundred.
 

A 36,800                      B 36,700                      C 37,000                      D 36,750                      E 36,000
- 3 Which of these is **sixty thousand and forty** written in figures?
 

A 60,400                      B 6,040                      C 600,040                      D 60,040                      E 60,004
- 4 Which of these numbers is a **common multiple of 6, 8 and 12**?
 

A 12                      B 24                      C 18                      D 36                      E 16
- 5 What is the **lowest common multiple (LCM)** of 9 and 12?
 

A 108                      B 36                      C 18                      D 72                      E 3
- 6 Which of these is a **prime number**?
 

A 39                      B 51                      C 57                      D 91                      E 41
- 7  $\frac{3}{5}$  of a number is 24. What is  $\frac{1}{2}$  of the same number?
 

A 12                      B 40                      C 30                      D 20                      E 8
- 8 What is  $\frac{5}{6} - \frac{3}{8}$ ?
 

A  $\frac{1}{2}$                       B  $\frac{13}{24}$                       C  $\frac{7}{24}$                       D  $\frac{1}{3}$                       E  $\frac{11}{24}$
- 9 Which of these fractions is the **smallest**?
 

A  $\frac{1}{2}$                       B  $\frac{3}{5}$                       C  $\frac{5}{8}$                       D  $\frac{2}{3}$                       E  $\frac{3}{4}$
- 10 A 5-litre bottle is  $\frac{4}{5}$  full. Then 750 ml is poured out. How much is left (in ml)?
 

A 4,000 ml                      B 4,750 ml                      C 3,250 ml                      D 2,500 ml                      E 3,750 ml
- 11 What is  $\frac{2}{3}$  of  $\frac{3}{4}$  of 60?
 

A 30                      B 45                      C 40                      D 20                      E 15
- 12 What is 0.45 written as a **fraction in its simplest form**?
 

A  $\frac{45}{100}$                       B  $\frac{9}{10}$                       C  $\frac{9}{20}$                       D  $\frac{1}{45}$                       E  $\frac{4}{5}$
- 13 Write  $\frac{13}{4}$  as a **mixed number**.
 

A  $3\frac{1}{2}$                       B  $4\frac{1}{4}$                       C  $2\frac{1}{4}$                       D  $3\frac{3}{4}$                       E  $3\frac{1}{4}$
- 14 What is  $0.08 \times 6$ ?
 

A 4.8                      B 0.048                      C 0.48                      D 48                      E 0.14

- 15** What is  $5 - 1.35 - 0.8$ ?  
A 4.45      B 2.85      C 2.95      D 3.65      E 2.65
- 16** What is **45% of 80**?  
A 44      B 35      C 40      D 32      E 36
- 17** A jacket costs **£42** after a **30% discount**. What was its **original price**?  
A £60      B £54.60      C £140      D £72      E £30
- 18** In a class of **90** children, **40%** are boys. How many **more girls than boys** are there?  
A 18      B 54      C 36      D 20      E 12
- 19** Red and blue counters are in the ratio **4 : 5**. There are **16 red** counters. How many counters are there **altogether**?  
A 20      B 36      C 45      D 16      E 24
- 20** Money is shared in the ratio **2 : 3 : 5**. The **largest** share is **£40**. What is the **total** amount shared?  
A £80      B £72      C £64      D £48      E £100
- 21** Squash and water are mixed in the ratio **1 : 5**. How much **squash** is in **900 ml** of drink?  
A 180 ml      B 750 ml      C 100 ml      D 450 ml      E 150 ml
- 22** If  $5a + 4 = 39$ , what is the value of **a**?  
A 8.6      B 35      C 6      D 7      E 9
- 23** If  $3(x - 2) = 21$ , what is the value of **x**?  
A 7      B 5      C 9      D 23      E 11
- 24** If  $6n - 5 = 4n + 7$ , what is the value of **n**?  
A 12      B 1      C 6      D 3      E 2
- 25** A sequence follows the rule '**treble, then subtract 2**'. The first term is **2**. What is the **fourth** term?  
A 28      B 10      C 82      D 4      E 16
- 26** What is the **10th term** of the sequence **5, 8, 11, 14, ...**?  
A 35      B 29      C 30      D 32      E 23
- 27** Pens cost **60p** each, or a **pack of 5** for **£2.50**. How much **cheaper per pen** is the pack?  
A 50p      B 5p      C 10p      D 2p      E 20p
- 28** Maya buys **4 notebooks** at **£2.75** each and a ruler for **£1.40**. She pays with **£20**. How much **change** does she get?  
A £7.60      B £9.00      C £6.60      D £8.60      E £5.20
- 29** A taxi charges a **£3.50** fixed fee plus **£1.20 per mile**. What is the cost of a **7-mile** trip?  
A £8.40      B £32.90      C £11.90      D £10.70      E £15.40
- 30** A ribbon is **3 metres** long. Five **45 cm** pieces are cut off. How much ribbon is **left** (in cm)?  
A 225 cm      B 135 cm      C 75 cm      D 45 cm      E 65 cm
- 31** How many **350 ml** cups can be **completely filled** from **2.5 litres** of juice?  
A 8      B 7      C 6      D 71      E 9
- 32** A train travels **210 km** in **2 hours 30 minutes**. What is its **average speed**?  
A 105 km/h      B 70 km/h      C 525 km/h      D 84 km/h      E 80 km/h

- 33** A film starts at **19:45** and lasts **2 hours 40 minutes**. What time does it **end**?  
**A** 21:25      **B** 22:05      **C** 23:25      **D** 22:15      **E** 22:25
- 34** A runner runs at **12 km per hour** for **40 minutes**. How far does she run?  
**A** 12 km      **B** 480 km      **C** 6 km      **D** 18 km      **E** 8 km
- 35** Three angles on a **straight line** are in the ratio **2 : 3 : 4**. What is the **largest** angle?  
**A** 90°      **B** 60°      **C** 80°      **D** 40°      **E** 160°
- 36** An **isosceles** triangle has an apex (top) angle of **50°**. What is the size of **each base angle**?  
**A** 130°      **B** 65°      **C** 50°      **D** 55°      **E** 75°
- 37** A rectangle has a **perimeter of 30 cm** and a **width of 5 cm**. What is its **area**?  
**A** 150 cm<sup>2</sup>      **B** 75 cm<sup>2</sup>      **C** 30 cm<sup>2</sup>      **D** 100 cm<sup>2</sup>      **E** 50 cm<sup>2</sup>
- 38** A square has an **area of 144 cm<sup>2</sup>**. What is its **perimeter**?  
**A** 24 cm      **B** 36 cm      **C** 144 cm      **D** 12 cm      **E** 48 cm
- 39** An L-shape is made from an **8 cm × 5 cm** rectangle with a **3 cm × 2 cm** rectangle removed from one corner. What is its **area**?  
**A** 46 cm<sup>2</sup>      **B** 40 cm<sup>2</sup>      **C** 26 cm<sup>2</sup>      **D** 32 cm<sup>2</sup>      **E** 34 cm<sup>2</sup>
- 40** A cuboid measures **5 cm × 4 cm × 3 cm**. What is its **volume**?  
**A** 94 cm<sup>3</sup>      **B** 12 cm<sup>3</sup>      **C** 60 cm<sup>3</sup>      **D** 47 cm<sup>3</sup>      **E** 120 cm<sup>3</sup>
- 41** A cube has a **volume of 216 cm<sup>3</sup>**. What is the length of **one edge**?  
**A** 72 cm      **B** 36 cm      **C** 6 cm      **D** 108 cm      **E** 16 cm

**Questions 42–44** refer to the table below, which shows the number of cakes a stall sold over four days.

| Day        | Mon | Tue | Wed | Thu |
|------------|-----|-----|-----|-----|
| Cakes sold | 18  | 22  | 16  | 24  |

- 42** Using the table above, how many cakes were sold **in total** over the four days?  
**A** 76      **B** 84      **C** 70      **D** 80      **E** 72
- 43** Using the table above, what is the **mean (average)** number of cakes sold per day?  
**A** 18      **B** 22      **C** 16      **D** 20      **E** 24
- 44** On Friday, sales were **25% more** than on Thursday. How many cakes were sold on **Friday**?  
**A** 30      **B** 18      **C** 6      **D** 48      **E** 26
- 45** Three corners of a rectangle are at **(2, 1)**, **(2, 5)** and **(7, 5)**. What are the coordinates of the **fourth corner**?  
**A** (7, 1)      **B** (5, 7)      **C** (7, 5)      **D** (2, 7)      **E** (5, 1)
- 46** Point **P** is at **(5, 6)**. It moves **3 left** and **2 up**. What are its **new** coordinates?  
**A** (8, 8)      **B** (2, 4)      **C** (8, 4)      **D** (2, 8)      **E** (3, 8)
- 47** The **mean** of five numbers is **15**. Four of them are **11, 17, 9 and 20**. What is the **fifth** number?  
**A** 15      **B** 57      **C** 75      **D** 18      **E** 16
- 48** What is the **median** of these numbers? **13, 8, 6, 11, 8, 16**  
**A** 8      **B** 9.5      **C** 11      **D** 10      **E** 9

- 49 What is the **range** of these temperatures?  $-6^{\circ}\text{C}$ ,  $4^{\circ}\text{C}$ ,  $-11^{\circ}\text{C}$ ,  $3^{\circ}\text{C}$ ,  $-1^{\circ}\text{C}$   
A 10                      B 7                      C 15                      D 11                      E 8
- 50 Ben thinks of a number. He **multiplies it by 4**, then **adds 7**, and gets **43**. What number did Ben think of?  
A 36                      B 9                      C 12.5                      D 13                      E 8
- 51 Eggs come in boxes of **6**. A baker needs **80 eggs**. How many **full boxes** must she buy to have enough?  
A 13                      B 80                      C 12                      D 14                      E 15
- 52 What is  $6^2 - 3^2$ ?  
A 27                      B 9                      C 3                      D 45                      E 18
- 53 A café offers **4 sandwiches**, **3 drinks** and **2 cakes**. How many different **lunches** of one sandwich, one drink and one cake are possible?  
A 9                      B 12                      C 14                      D 24                      E 7
- 54 Work out:  $24 - 8 \times 2 + 5$   
A 13                      B 37                      C 21                      D 16                      E 9
- 55 Which of these is the number **64** written in **Roman numerals**?  
A LXVI                      B LXIV                      C XLIV                      D LIV                      E LXIII
- 56 How many **lines of symmetry** does a **regular hexagon** have?  
A 3                      B 2                      C 12                      D 0                      E 6
- 57 A ship is sailing **East**. It then turns  **$135^{\circ}$  anticlockwise**. In which direction is it now heading?  
A North-East                      B North-West                      C South-West                      D South-East                      E West
- 58 The temperature is  $4^{\circ}\text{C}$ . It **falls by  $11^{\circ}\text{C}$** , then **rises by  $3^{\circ}\text{C}$** . What is the **final** temperature?  
A  $-4^{\circ}\text{C}$                       B  $-10^{\circ}\text{C}$                       C  $-7^{\circ}\text{C}$                       D  $18^{\circ}\text{C}$                       E  $2^{\circ}\text{C}$

# Answer Sheet

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Fill the **lozenge** for each answer with a pencil. To change an answer, rub it out fully and fill your new choice.

| Q  | A                     | B                     | C                     | D                     | E                     |
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| Q  | A                     | B                     | C                     | D                     | E                     |
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