

Sutton Selective Eligibility Test (SET) — Style Practice

Mathematics

MULTIPLE-CHOICE PAPER · PRACTICE PAPER 2

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

Candidate details

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 4 in the number 27.043?

A 0.4 (four tenths) B 0.04 (four hundredths) C 0.004 (four thousandths) D 4
E 40
- 2 Round 48,651 to the nearest thousand.

A 48,000 B 49,000 C 49,651 D 48,700 E 50,000
- 3 Which of these is four hundred thousand and seventy written in figures?

A 400,700 B 40,070 C 4,000,070 D 400,070 E 400,007
- 4 Which of these numbers is a common multiple of 4, 6 and 8?

A 12 B 24 C 16 D 36 E 18
- 5 What is the highest common factor (HCF) of 24 and 36?

A 72 B 12 C 6 D 4 E 2
- 6 $\frac{2}{5}$ of a number is 16. What is $\frac{3}{4}$ of the same number?

A 40 B 6 C 24 D 20 E 30
- 7 What is $\frac{5}{6} - \frac{1}{3}$?

A $\frac{1}{3}$ B $\frac{2}{3}$ C $\frac{1}{4}$ D $\frac{1}{2}$ E $\frac{1}{6}$
- 8 Which of these fractions is the largest?

A $\frac{2}{3}$ B $\frac{5}{8}$ C $\frac{3}{5}$ D $\frac{1}{2}$ E $\frac{3}{4}$
- 9 A 4-litre container is $\frac{3}{4}$ full. Then 500 ml is poured out. How much water is left (in ml)?

A 2,500 ml B 3,000 ml C 3,500 ml D 1,500 ml E 2,000 ml
- 10 What is $\frac{2}{5}$ of $\frac{3}{5}$ of 50?

A 30 B 20 C 12 D 6 E 18
- 11 What is 0.06×7 ?

A 0.42 B 4.2 C 0.042 D 42 E 0.13
- 12 What is $3 - 0.45 - 1.2$?

A 1.55 B 2.55 C 1.35 D 1.45 E 1.25
- 13 What is 35% of 60?

A 18 B 24 C 15 D 36 E 21
- 14 A coat costs £36 after a 25% discount. What was its original price?

A £45 B £27 C £48 D £144 E £60
- 15 There are 80 children. 45% are boys. How many more girls than boys are there?

A 44 B 8 C 36 D 10 E 16

- 16** Red and blue counters are in the ratio **3 : 5**. There are **12 red** counters. How many counters are there **altogether**?
- A 20 B 12 C 40 D 24 E 32
- 17** Sweets are shared in the ratio **2 : 3 : 4**. The **largest** share is **24** sweets. How many sweets are there **in total**?
- A 54 B 48 C 36 D 24 E 42
- 18** Squash and water are mixed in the ratio **1 : 4**. How much **squash** is in **600 ml** of drink?
- A 120 ml B 150 ml C 480 ml D 100 ml E 200 ml
- 19** If **$4a + 3 = 27$** , what is the value of **a**?
- A 7.5 B 6 C 8 D 5 E 9
- 20** If **$2(x - 1) = 14$** , what is the value of **x**?
- A 8 B 7 C 6 D 15 E 9
- 21** If **$5n - 2 = 3n + 8$** , what is the value of **n**?
- A 3 B 10 C 6 D 2 E 5
- 22** A sequence follows the rule '**double, then add 1**'. The first term is **3**. What is the **fourth** term?
- A 15 B 23 C 63 D 31 E 7
- 23** What is the **12th term** of the sequence **7, 11, 15, 19, ...**?
- A 47 B 55 C 51 D 48 E 44
- 24** What is **$5^2 - 4^2$** ?
- A 1 B 41 C 9 D 81 E 3
- 25** Yoghurts cost **45p** each, or a **pack of 6** for **£2.40**. How much **cheaper per yoghurt** is the pack?
- A 5p B 40p C 10p D 15p E 20p
- 26** Sam buys **3 books** at **£4.50** each and a pen for **£1.25**. He pays with **£20**. How much **change** does he get?
- A £4.75 B £6.25 C £5.75 D £5.25 E £4.25
- 27** A plumber charges a **£40** call-out fee plus **£25 per hour**. What is the bill for a **3-hour** job?
- A £75 B £195 C £115 D £105 E £120
- 28** A plank is **2 metres** long. Three **40 cm** pieces are cut off. How much is **left** (in cm)?
- A 80 cm B 120 cm C 160 cm D 60 cm E 100 cm
- 29** How many **250 ml** glasses can be **filled** from **1.7 litres** of juice?
- A 7 B 68 C 6 D 8 E 5
- 30** A car travels **180 km** in **2 hours 30 minutes**. What is its **average speed**?
- A 90 km/h B 60 km/h C 72 km/h D 75 km/h E 45 km/h
- 31** A journey starts at **13:40** and takes **2 hours 50 minutes**. What time does it **end**?
- A 15:30 B 16:30 C 16:20 D 16:50 E 17:30
- 32** A cyclist rides at **16 km per hour** for **45 minutes**. How far does she travel?
- A 16 km B 720 km C 8 km D 12 km E 20 km
- 33** Three angles on a **straight line** are in the ratio **1 : 2 : 3**. What is the **largest** angle?
- A 60° B 120° C 30° D 100° E 90°

34 An **isosceles** triangle has a top angle of **40°**. What is the size of **each base angle**?

- A** 140° **B** 50° **C** 40° **D** 100° **E** 70°

35 A rectangle has a **perimeter of 34 cm** and a **length of 10 cm**. What is its **area**?

- A** 34 cm² **B** 170 cm² **C** 70 cm² **D** 24 cm² **E** 48 cm²

36 A square has an **area of 81 cm²**. What is its **perimeter**?

- A** 18 cm **B** 36 cm **C** 81 cm **D** 27 cm **E** 45 cm

37 An L-shape is made from a **6 cm × 4 cm** rectangle with a **2 cm × 2 cm** square removed. What is its **area**?

- A** 24 cm² **B** 28 cm² **C** 16 cm² **D** 18 cm² **E** 20 cm²

38 A cuboid measures **6 cm × 3 cm × 4 cm**. What is its **volume**?

- A** 13 cm³ **B** 26 cm³ **C** 144 cm³ **D** 120 cm³ **E** 72 cm³

39 A cube has a **volume of 125 cm³**. What is the length of **one edge**?

- A** 25 cm **B** 15 cm **C** 12 cm **D** 35 cm **E** 5 cm

40 Three corners of a rectangle are at **(1, 1)**, **(1, 4)** and **(6, 4)**. What are the coordinates of the **fourth corner**?

- A** (4, 6) **B** (6, 4) **C** (6, 1) **D** (1, 6) **E** (4, 1)

41 Point **P** is at **(4, 5)**. It moves **3 left** and **2 down**. What are its **new** coordinates?

- A** (7, 7) **B** (1, 7) **C** (1, 3) **D** (7, 3) **E** (2, 3)

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

Day	Mon	Tue	Wed	Thu
Pies sold	14	21	17	28

42 Using the table above, how many pies were sold **in total** over the four days?

- A** 70 **B** 90 **C** 76 **D** 80 **E** 84

43 Using the table above, what is the **mean (average)** number of pies sold per day?

- A** 18 **B** 22 **C** 25 **D** 20 **E** 19

44 On Friday, sales were **25% less** than on Thursday. How many pies were sold on **Friday**?

- A** 21 **B** 35 **C** 7 **D** 24 **E** 23

45 The **mean** of four numbers is **15**. Three of them are **12, 18 and 11**. What is the **fourth** number?

- A** 19 **B** 15 **C** 14 **D** 41 **E** 17

46 What is the **median** of these numbers? **14, 9, 7, 12, 9, 15**

- A** 9 **B** 12 **C** 11 **D** 10.5 **E** 10

47 What is the **range** of these temperatures? **−7°C, 3°C, −12°C, 5°C, −2°C**

- A** 12 **B** 7 **C** 5 **D** 17 **E** 15

48 Sam thinks of a number. He **multiplies it by 6**, then **subtracts 5**, and gets **31**. What number did Sam think of?

- A** 36 **B** 6 **C** 26 **D** 5 **E** 7

49 Eggs come in trays of **12**. A baker needs **90 eggs**. How many **full trays** must she buy to have enough?

- A** 7 **B** 9 **C** 8 **D** 90 **E** 6

50 A café offers **3 starters**, **4 main courses** and **2 desserts**. How many different **three-course meals** are possible?

- A** 9 **B** 24 **C** 12 **D** 14 **E** 7

51 Which of these is a **prime number**?

- A** 27 **B** 33 **C** 39 **D** 37 **E** 51

52 Work out: **$24 - 6 \times 3 + 2$**

- A** 8 **B** 56 **C** 36 **D** 20 **E** 14

53 What is **0.35** written as a **fraction in its simplest form**?

- A** 35/100 **B** 1/3 **C** 7/10 **D** 7/20 **E** 3/5

54 Write **11/4** as a **mixed number**.

- A** $2\frac{3}{4}$ **B** $2\frac{1}{4}$ **C** $3\frac{3}{4}$ **D** $1\frac{3}{4}$ **E** $2\frac{1}{2}$

55 Which of these is the number **84** written in **Roman numerals**?

- A** XXCIV **B** LXXXIV **C** LXXIV **D** LXXXVI **E** XCIV

56 How many **lines of symmetry** does a **regular pentagon** have?

- A** 1 **B** 2 **C** 10 **D** 0 **E** 5

57 A ship is sailing **North**. It then turns **135° clockwise**. In which direction is it now heading?

- A** South-West **B** South-East **C** North-East **D** East **E** South

58 The temperature is **5°C**. It **falls by 9°C**, then **rises by 2°C**. What is the **final** temperature?

- A** -2°C **B** 2°C **C** -4°C **D** 16°C **E** -6°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
1	☐	☐	☐	☐	☐
2	☐	☐	☐	☐	☐
3	☐	☐	☐	☐	☐
4	☐	☐	☐	☐	☐
5	☐	☐	☐	☐	☐
6	☐	☐	☐	☐	☐
7	☐	☐	☐	☐	☐
8	☐	☐	☐	☐	☐
9	☐	☐	☐	☐	☐
10	☐	☐	☐	☐	☐
11	☐	☐	☐	☐	☐
12	☐	☐	☐	☐	☐
13	☐	☐	☐	☐	☐
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18	☐	☐	☐	☐	☐
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26	☐	☐	☐	☐	☐
27	☐	☐	☐	☐	☐
28	☐	☐	☐	☐	☐
29	☐	☐	☐	☐	☐

Q	A	B	C	D	E
30	☐	☐	☐	☐	☐
31	☐	☐	☐	☐	☐
32	☐	☐	☐	☐	☐
33	☐	☐	☐	☐	☐
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36	☐	☐	☐	☐	☐
37	☐	☐	☐	☐	☐
38	☐	☐	☐	☐	☐
39	☐	☐	☐	☐	☐
40	☐	☐	☐	☐	☐
41	☐	☐	☐	☐	☐
42	☐	☐	☐	☐	☐
43	☐	☐	☐	☐	☐
44	☐	☐	☐	☐	☐
45	☐	☐	☐	☐	☐
46	☐	☐	☐	☐	☐
47	☐	☐	☐	☐	☐
48	☐	☐	☐	☐	☐
49	☐	☐	☐	☐	☐
50	☐	☐	☐	☐	☐
51	☐	☐	☐	☐	☐
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53	☐	☐	☐	☐	☐
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55	☐	☐	☐	☐	☐
56	☐	☐	☐	☐	☐
57	☐	☐	☐	☐	☐
58	☐	☐	☐	☐	☐

END OF PAPER