ENGLAND GCSE MATHS OCR HIGHER · UNIT 1 · 25 QUESTIONS

# Number, Structure and Calculation — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

**1** **Each bag holds 6 red apples. How many red apples are in 6 bags?**

- A 12
- B 42
- C 36
- D 30

Understand It with Pulse | Flag a mistake

**2** **Each box holds 7 silver coins. How many silver coins are in 6 boxes?**

- A 13
- B 42
- C 35
- D 49

Understand It with Pulse | Flag a mistake

3 **Amara buys a bicycle for £115. She pays with £120. How much change does she get?**

A £4

B £5

C £10

D £6

Understand It with Pulse | Flag a mistake

4 **Each box holds 6 glass marbles. How many glass marbles are in 4 boxes?**

A 24

B 10

C 18

D 30

Understand It with Pulse | Flag a mistake

5 **Amara buys a tennis ball for £3. She pays with £8. How much change does she get?**

A £5

B £10

C £6

D £4

Understand It with Pulse | Flag a mistake

6 **Each box holds 5 lemons. How many lemons are in 3 boxes?**

A 10

B 8

C 20

D 15

Understand It with Pulse | Flag a mistake

7 **Amara buys a guitar for £57. She pays with £59. How much change does she get?**

A £1

B £2

C £7

D £3

Understand It with Pulse | Flag a mistake

8 **Aisha has 5 tops, 5 skirts and 3 pairs of shoes. How many different outfits can she make?**

A 75

B 28

C 25

D 13

Understand It with Pulse | Flag a mistake

9 **Write <svg viewBox="0 0 150 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L150 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>27square root of 27 + <svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>3square root of 3 in the form a<svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>3square root of 3**

> 3<svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true"

A style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>3square root of 3

B 5<svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>3square root of 3

C <svg viewBox="0 0 150 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L150 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>30square root of 30

D 4<svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg><span

style="position:relative">3square root of 3

Understand It with Pulse | Flag a mistake

**10** **Between which two whole numbers does <svg viewBox="0 0 150 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L150 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>70square root of 70 lie?**

A 8 and 9

B 9 and 10

C 7 and 8

D 8 and 10

Understand It with Pulse | Flag a mistake

11 **$3.6 \times 10^4$ is equal to**

A 37000

B 3600

C 360000

D 36000

Understand It with Pulse | Flag a mistake

12 **$6 + 3 \times 3$ is equal to**

A 12

B 15

C 21

D 27

Understand It with Pulse | Flag a mistake

**13** **Write 1/<svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>7square root of 7 with a rational denominator**

A <svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>7square root of 7/2

B $\frac{1}{7}$

C <svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>7square root of 7

D <svg viewBox="0 0 101 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L101 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>7square root of 7/7

Understand It with Pulse | Flag a mistake

**14** **An estimate for 41.3 × 30.8 is**

- A 635
- B 1230
- C 1271
- D 1581

Understand It with Pulse | Flag a mistake

**15** **Write $3^5/3^4$ as a single power of 3**

- A $3^9$
- B $3^{20}$
- C $3^1$
- D $3^3$

Understand It with Pulse | Flag a mistake

16 **The value of $10^4$ is**

A 10010

B 40

C 10000

D 5000

Understand It with Pulse | Flag a mistake

17 **The lowest common multiple of 42 and 16 is**

A 332

B 338

C 334

D 336

Understand It with Pulse | Flag a mistake

18 **Which is the smallest of these numbers?**

A 0.4

B 0.6

C 0.405

D 0.54

Understand It with Pulse | Flag a mistake

19 **-5 + 5 is equal to**

A -2

B 0

C 10

D -1

Understand It with Pulse | Flag a mistake

**20** The cube root of 125 is

- A 10
- B 6
- C 7
- D 5

Understand It with Pulse | Flag a mistake

**21** $36^{1/2}$ is equal to

- A 8
- B 18
- C 6
- D 12

Understand It with Pulse | Flag a mistake

22 **Aisha has 4 tops, 4 skirts and 3 pairs of shoes. How many different outfits can she make?**

A 16

B 48

C 19

D 11

Understand It with Pulse | Flag a mistake

23 **Between which two whole numbers does <svg viewBox="0 0 200 100" preserveAspectRatio="none" aria-hidden="true" style="position:absolute;left:0;top:-.14em;width:100%;height:calc(100% + 0.14em);overflow:visible"><path d="M3 52 L21 97 L40 6 L200 6" fill="none" stroke="currentColor" stroke-width="2.6" stroke-linejoin="round" stroke-linecap="round" vector-effect="non-scaling-stroke"/></svg>150square root of 150 lie?**

A 11 and 12

B 12 and 14

C 12 and 13

D 13 and 14

Understand It with Pulse | Flag a mistake

24 **$1.5 \times 10^4$ is equal to**

A 1500

B 16000

C 15000

D 150000

Understand It with Pulse | Flag a mistake

25 **$9 + 4 \times 8$ is equal to**

A 21

B 44

C 41

D 104

Understand It with Pulse | Flag a mistake

## ANSWER KEY

| | | | | | |
|---|---|---|---|---|---|
| **1.** | C | **10.** | A | **19.** | B |
| **2.** | B | **11.** | D | **20.** | D |
| **3.** | B | **12.** | B | **21.** | C |
| **4.** | A | **13.** | D | **22.** | B |
| **5.** | A | **14.** | C | **23.** | C |
| **6.** | D | **15.** | C | **24.** | C |
| **7.** | B | **16.** | C | **25.** | C |
| **8.** | A | **17.** | D | | |
| **9.** | D | **18.** | A | | |

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