ENGLAND GCSE MATHS EDEXCEL FOUNDATION · UNIT 5 · 25 QUESTIONS

Algebra, Equations and Inequalities — 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 **A guitar costs x pounds. Two guitars and a £25 case cost £115. The value of x is**

- **A** £50
- **B** £40
- **C** £90
- **D** £45

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2 **Two hardcover books and one calculator cost £11. One hardcover book and two calculators cost £13. The cost of one calculator is**

A £5

B £6

C £3

D £4

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3 **A cup of coffee costs x pounds. 3 cups of coffee cost £6. The value of x is**

A £2

B £6

C £1

D £3

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4 **A tennis ball costs x pounds. A tube of 4 tennis balls costs £8. The value of x is**

- A £3
- B £8
- C £1
- D £2

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5 **A sandwich costs x pounds. 4 sandwiches cost £24. The value of x is**

- A £6
- B £24
- C £7
- D £5

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6 **A bicycle costs x pounds. After a £10 discount it costs £150. The value of x is**

- A £140
- B £170
- C £160
- D £150

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7 **Solve the inequality $2x + 2 < 6$**

- A $x < 3$
- B $x > 2$
- C $x \leq 2$
- D $x < 2$

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8 **Solve 5x + 9 = 19**

A x = 2

B x = 3

C x = 1

D x = 5

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9 **Solve the simultaneous equations x + y = 7, x - y = 3**

A x = 5, y = 2

B x = 6, y = 2

C x = 2, y = 5

D x = 5, y = 3

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10 **Which inequality is shown by the integers x that satisfy x > 4 and x ≤ 8?**

- **A** $4 < x \leq 8$
- **B** $4 < x < 8$
- **C** $x > 4$
- **D** $4 \leq x < 8$

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11 **Solve 5x + 3 = 2x + 21**

- **A** $x = 5$
- **B** $x = 6$
- **C** $x = 4$
- **D** $x = 7$

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12 **Solve $x^2 + 6x + 5 = 0$**

- A: x = -5 or x = -1
- B: x = 1 or x = 5
- C: x = 1 or x = 6
- D: x = 5

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13 **A number multiplied by 2, plus 5, is 25. What is the number?**

- A: 9
- B: 10
- C: 11
- D: 12

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14 **Solve 6(x + 3) = 36**

- **A** x = 3
- **B** x = 5
- **C** x = 6
- **D** x = 2

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15 **The formula v = u + at gives v = 15 when u = 9, a = 2 and t = 3. Rearrange the formula to make t the subject.**

- **A** t = v + u/a
- **B** t = (v - u) × a
- **C** t = v - u/a
- **D** t = v - u - a

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16 **Solve the inequality 4x + 8 < 32**

A x > 6

B x < 6

C x ≤ 6

D x < 7

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17 **Solve 3x + 7 = 40**

A x = 11

B x = 12

C x = 10

D x = 13

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18 **Solve the simultaneous equations x + y = 3, x - y = 1**

A x = 3, y = 1

B x = 2, y = 1

C x = 1, y = 2

D x = 2, y = 2

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19 **Which inequality is shown by the integers x that satisfy x > 2 and x ≤ 6?**

A $x > 2$

B $2 \leq x < 6$

C $2 < x \leq 6$

D $2 < x < 6$

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20 **Solve 5x + 6 = 16**

A x = 2

B x = 1

C x = 5

D x = 3

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21 **Solve 5x + 4 = 2x + 13**

A x = 4

B x = 3

C x = 6

D x = 2

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22 **Solve $x^2 - 4x - 12 = 0$**

- **A** $x = 2$
- **B** $x = -6$ or $x = 3$
- **C** $x = -2$ or $x = 6$
- **D** $x = -6$ or $x = 2$

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23 **The formula $v = u + at$ gives $v = 24$ when $u = 4$, $a = 5$ and $t = 4$. Rearrange the formula to make t the subject.**

- **A** $t = v + u/a$
- **B** $t = (v - u) \times a$
- **C** $t = v - u - a$
- **D** $t = v - u/a$

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24 **Solve the inequality 6x + 1 < 55**

A x < 9

B x < 10

C x > 9

D x ≤ 9

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25 **Solve 2x + 7 = 25**

A x = 8

B x = 9

C x = 10

D x = 12

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ANSWER KEY

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

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