ENGLAND GCSE MATHS AQA 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 **Two hardcover books and one calculator cost £17. One hardcover book and two calculators cost £13. The cost of one calculator is**

A £7

B £4

C £2

D £3

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2 **A bicycle costs x pounds. After a £25 discount it costs £200. The value of x is**

- A £175
- B £200
- C £235
- D £225

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3 **A cup of coffee costs x pounds. 3 cups of coffee cost £15. The value of x is**

- A £4
- B £15
- C £6
- D £5

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4 **A guitar costs x pounds. Two guitars and a £20 case cost £100. The value of x is**

- A £80
- B £45
- C £35
- D £40

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

- A £7
- B £6
- C £5
- D £24

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6 **A tennis ball costs x pounds. A tube of 4 tennis balls costs £20. The value of x is**

- **A** £4
- **B** £6
- **C** £20
- **D** £5

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7 **Which inequality is shown by the integers x that satisfy $x > 2$ and $x \leq 6$?**

- **A** $x > 2$
- **B** $2 < x \leq 6$
- **C** $2 < x < 6$
- **D** $2 \leq x < 6$

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8 **Solve 5x + 9 = 49**

A x = 9

B x = 7

C x = 8

D x = 10

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9 **Solve $x^2 + 5x + 4 = 0$**

A x = 1 or x = 4

B x = 1

C x = 1 or x = 5

D x = -1 or x = -4

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10 **The formula v = u + at gives v = 18 when u = 2, a = 4 and t = 4. 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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11 **Solve 6(x + 6) = 48**

- A x = 4
- B x = 2
- C x = 1
- D x = 8

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12 **Solve the inequality 3x + 7 < 25**

A x > 6

B x < 7

C x < 6

D x ≤ 6

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

A x = 8, y = 1

B x = 1, y = 8

C x = 1, y = 9

D x = 2, y = 8

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14 **Solve 3x + 1 = 2x + 9**

- A x = 3
- B x = 8
- C x = 7
- D x = 9

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15 **A number multiplied by 2, plus 5, is 27. What is the number?**

- A 12
- B 11
- C 13
- D 10

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16 **Which inequality is shown by the integers x that satisfy x > 3 and x ≤ 7?**

A $3 < x \leq 7$

B $x > 3$

C $3 < x < 7$

D $3 \leq x < 7$

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17 **Solve 5x + 5 = 40**

A $x = 8$

B $x = 6$

C $x = 9$

D $x = 7$

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18 **Solve 3x + 4 = 37**

- **A** x = 11
- **B** x = 12
- **C** x = 13
- **D** x = 10

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19 **The formula v = u + at gives v = 32 when u = 8, a = 4 and t = 6. 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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20 **Solve 4(x + 6) = 48**

A x = 8

B x = 5

C x = 6

D x = 12

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21 **Solve the inequality 3x + 6 < 30**

A x > 8

B x < 8

C x < 9

D x ≤ 8

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22 **Solve the simultaneous equations x + y = 10, x - y = -6**

A x = 2, y = 9

B x = 8, y = 2

C x = 2, y = 8

D x = 3, y = 8

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23 **Solve 5x + 9 = x + 21**

A x = 4

B x = 6

C x = 2

D x = 3

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24 **A number multiplied by 2, plus 2, is 26. What is the number?**

- A 12
- B 13
- C 11
- D 14

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

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

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ANSWER KEY

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

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