ENGLAND GCSE MATHS AQA HIGHER · UNIT 4 · 10 QUESTIONS

Algebra, Graphs — 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 kite string has gradient $\frac{5}{4}$. It goes 12 m across. How high is the kite?**

- **A** 15
- **B** 12
- **C** 20
- **D** 10

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2 **A sunflower grows 5 cm every week. The gradient of its height-time graph is**

- **A** 5
- **B** 6
- **C** 4
- **D** 10

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3 **The turning point of $y = (x + 3)^2 + 3$ is**

- **A** (3, 3)
- **B** (-3, -3)
- **C** (-4, 2)
- **D** (-3, 3)

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4 **A line is perpendicular to y = 1/3x + 3. The gradient of the perpendicular line is**

- A -1/3
- B -3
- C 3
- D $\frac{1}{3}$

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5 **The y-intercept of y = -3x + 6 is**

- A -6
- B -3
- C 6
- D 3

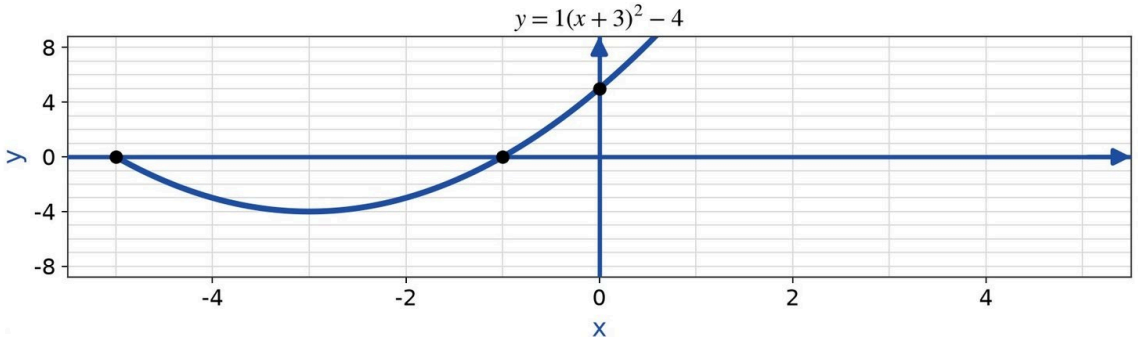
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6 **A ladder leans against a wall. It rises 5 m for every 2 m it goes across. The gradient of the ladder is**

- **A** 3
- **B** $\frac{5}{3}$
- **C** $\frac{5}{2}$
- **D** $\frac{2}{5}$

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7 **The graph below shows y = (x + 3)² - 4. The vertex of the graph is**



A (3, -4)

B (-3, -4)

C (-3, 4)

D (-4, -5)

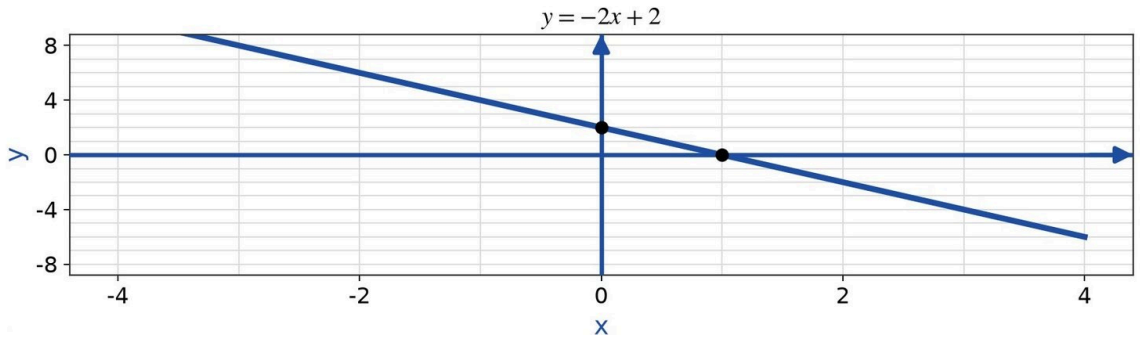
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8 **The midpoint of the line joining (1, 4) and (3, 10) is**

- **A** (3, 4)
- **B** (1, 10)
- **C** (1, 3)
- **D** (2, 7)

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9 **The graph below shows y = -2x + 2. The value of y when x = -3 is**



A 8

B 10

C 6

D 4

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10 For the equation y = 3x + 5, the value of y when x = 6 is

A 20

B 26

C 23

D 13

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ANSWER KEY

1.	A	**5.**	C	**9.**	A
2.	A	**6.**	C	**10.**	C
3.	D	**7.**	B		
4.	B	**8.**	D		

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