ENGLAND GCSE MATHS EDEXCEL 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 16 m across. How high is the kite?**

- **A** 16
- **B** 25
- **C** 15
- **D** 20

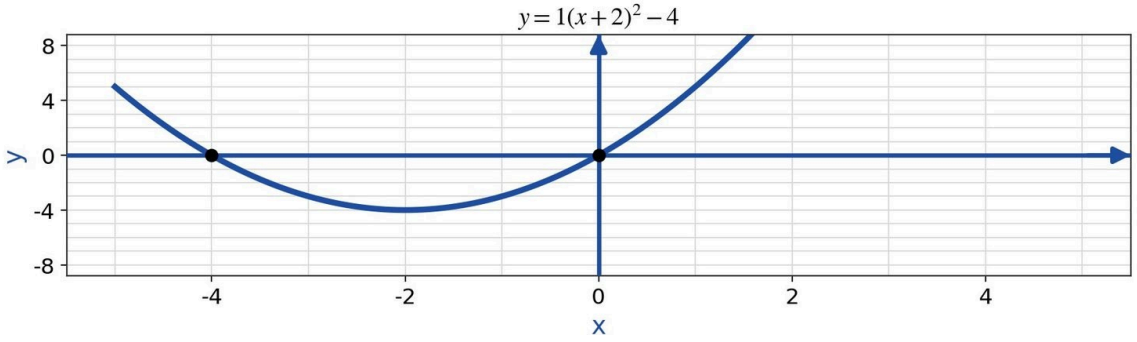
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2 **A bicycle path falls 2 m for every 3 m it goes across. The gradient of the path is**

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

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



A (-2, 4)

B (-2, -4)

C (-3, -5)

D (2, -4)

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4 **For the equation y = 2x + 1, the value of y when x = 3 is**

A 8

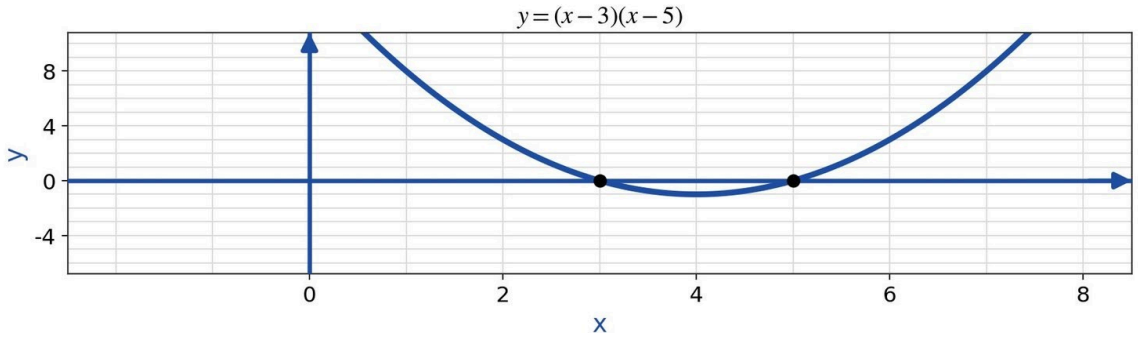
B 9

C 5

D 7

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5 **The graph shows y = x² - 8x + 15. The roots of the equation x² - 8x + 15 = 0 are**



A x = 4 and x = 5

B x = 3 and x = 5

C x = 3 and x = -5

D x = -3 and x = -5

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6 **The turning point of $y = (x - 4)^2 + 2$ is**

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

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7 **A line is perpendicular to $y = 1/2x + 3$. The gradient of the perpendicular line is**

- **A** -2
- **B** -1/2
- **C** $\frac{1}{2}$
- **D** 2

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8 **A passenger aeroplane climbs 600 m for every 2000 m it travels forwards. The gradient of its flight path is**

- **A** $\frac{7}{20}$
- **B** $\frac{1}{5}$
- **C** $\frac{10}{3}$
- **D** $\frac{3}{10}$

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9 **The y-intercept of y = 4x + 6 is**

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

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10 **The circle $x^2 + y^2 = 25$ has radius**

A 10

B 25

C 6

D 5

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ANSWER KEY

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

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