ONTARIO ADVANCED FUNCTIONS, GRADE 12, UNIVERSITY PREPARATION (MHF4U) · UNIT D · 10 QUESTIONS

Combining Functions and Rates of Change — Practice Test

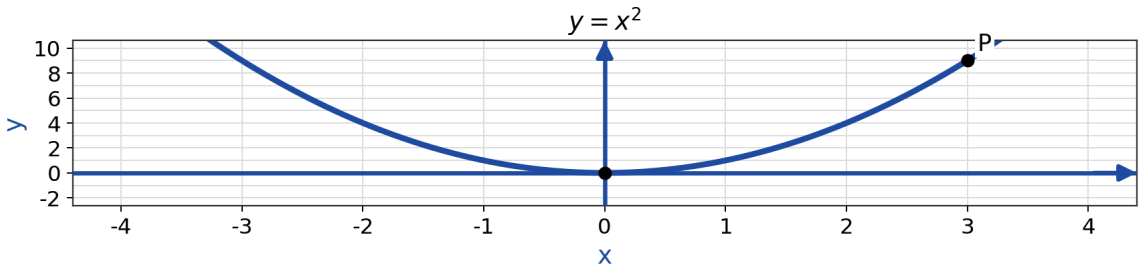
This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 For $f(x) = x^2 + 3$ and $g(x) = x$ the value of $(f - g)(3)$ is

- A 10
- B 8
- C 12
- D 9

Understand It with Pulse | Flag a mistake

2 **The graph shows a function. The value at the marked point is Figure 2**



A 9

B 10

C 8

D 18

Understand It with Pulse | Flag a mistake

3 **For $f(x) = x^2$ the average rate of change from x equal to 1 to x equal to 5 is**



A 6

B 7

C 5

D 17

Understand It with Pulse | Flag a mistake

4 **For $f(x) = x^2$ the instantaneous rate of change at x equal to 5 is**

- A 12
- B 8
- C 5
- D 10

Understand It with Pulse | Flag a mistake

5 **If $f(x) = 5x + 1$ then $f^{-1}(11)$ equals**

- A 1
- B 3
- C 2
- D 0

Understand It with Pulse | Flag a mistake

6 **The difference quotient for f(x) = 6x with step h is equal to**

A 0

B 2

C 7

D 6

Understand It with Pulse | Flag a mistake

7 The domain of $f(x) = \sqrt{x - 5}$ is



A $x > 5$

B $x \geq 5$

C $x \leq 5$

D $x \geq -5$

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8 For $f(x) = x^2 + 4$ and $g(x) = x$ the value of $(f - g)(3)$ is

A 10

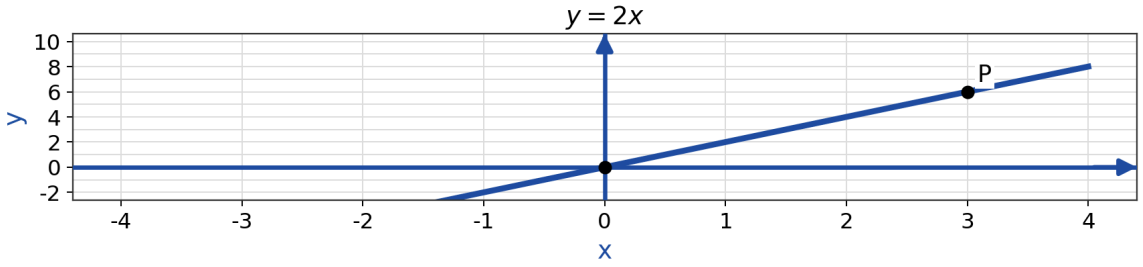
B 11

C 9

D 13

Understand It with Pulse | Flag a mistake

9 The graph shows a function. The value at the marked point is Figure 3



A 6

B 7

C 5

D 12

Understand It with Pulse | Flag a mistake

10 For $f(x) = x^2 + 5$ and $g(x) = x$ the value of $(f - g)(3)$ is

A 12

B 11

C 10

D 14

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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