NOVA SCOTIA PRE-CALCULUS 12 · UNIT A · 25 QUESTIONS

Function Transformations and Function Operations — 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 **If $f(x) = 2x + 3$ and $g(x) = x^2$, find $f + g$ at $x = 4$.**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **If $f(x) = 1x + 5$ and $g(x) = x^2$, find $f + g$ at $x = 3$.**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **If $f(x) = 3x + 2$ and $g(x) = x^2$, find $f + g$ at $x = 5$.**

ANSWER _____

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4 **If f(x) = 2x + 1 and g(x) = x² , find f + g at x = 6 .**

ANSWER _____

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5 **If f(x) = 4x + 3 and g(x) = x² , find f + g at x = 2 .**

ANSWER _____

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6 **If f(x) = 1x + 2 and g(x) = x² , find f + g at x = 7 .**

ANSWER _____

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7 **If f(x) = 3x + 4 and g(x) = x² , find f + g at x = 3 .**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **If f(x) = 2x + 6 and g(x) = x² , find f + g at x = 4 .**

ANSWER _____

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9 **If f(x) = 5x + 1 and g(x) = x² , find f + g at x = 3 .**

ANSWER _____

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10 **If f(x) = 1x + 3 and g(x) = x² , find f + g at x = 8 .**

ANSWER _____

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11 **If f(x) = 3x + 1 and g(x) = x² , find f + g at x = 4 .**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **If f(x) = 2x + 4 and g(x) = x² , find f + g at x = 5 .**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **If f(x) = 4x + 2 and g(x) = x² , find f + g at x = 3 .**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **If f(x) = 1x + 6 and g(x) = x² , find f + g at x = 4 .**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **The graph of y = f(x) + 3 is the graph of f shifted**

A up 3 units

B down 3 units

C right 3 units

D left 3 units

Understand It with Pulse | Flag a mistake

16 **The graph of y = f(x) - 2 is the graph of f shifted**

A up 2 units

B down 2 units

C right 2 units

D left 2 units

Understand It with Pulse | Flag a mistake

17 **The graph of y = f(x) + 4 is the graph of f shifted**

A right 4 units

B up 4 units

C left 4 units

D down 4 units

Understand It with Pulse | Flag a mistake

18 **The graph of y = f(x) - 1 is the graph of f shifted**

A left 1 unit

B up 1 unit

C down 1 unit

D right 1 unit

Understand It with Pulse | Flag a mistake

19 **The graph of y = -f(x) is the graph of f reflected**

A across the x axis

B across the y axis

C across the line y equals x

D through the origin only

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20 **The graph of y = f(negative) x is the graph of f reflected**

A across the x axis

B across the y axis

C across the line y = x

D through the origin only

Understand It with Pulse | Flag a mistake

21 **The graph of y = 2 f(x) is the graph of f stretched**

- A horizontally by a factor of 2
- B vertically by a factor of $\frac{1}{2}$
- C vertically by a factor of 2
- D horizontally by a factor of $\frac{1}{2}$

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22 **The graph of y = f(2x) is the graph of f compressed**

- A vertically by a factor of 2
- B horizontally by a factor of 2
- C vertically by a factor of $\frac{1}{2}$
- D horizontally by a factor of $\frac{1}{2}$

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23 **The domain of a function is the set of**

- A all allowed input values
- B all output values
- C all x intercepts
- D all y intercepts

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24 **The range of a function is the set of**

- A all allowed input values
- B all output values
- C all x intercepts
- D all turning points

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25

The composition f(g(x)) means

A apply f first, then g

B add f and g

C apply g first, then f

D multiply f and g

Understand It with Pulse

Flag a mistake

ANSWER KEY

1.	27	**10.**	75	**19.**	A
2.	17	**11.**	29	**20.**	B
3.	42	**12.**	39	**21.**	C
4.	49	**13.**	23	**22.**	D
5.	15	**14.**	26	**23.**	A
6.	58	**15.**	A	**24.**	B
7.	22	**16.**	B	**25.**	C
8.	30	**17.**	B		
9.	25	**18.**	C		

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