PRINCE EDWARD ISLAND PRE-CALCULUS 12 · UNIT A · 25 QUESTIONS

# Function Transformations — 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 g(x) = 3f(x) + 1 , where f(2) = 4 , the value of g at 2 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **For g(x) = 2f(x - 1) + 3, where f(x) = x², the value of g at x = 3 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **For the function y = the square root of x , the value at x = 25 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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

A up 4 units

B down 4 units

C right 4 units

D left 4 units

Understand It with Pulse | Flag a mistake

5 **A horizontal compression by a factor of one half replaces x with**

A x ÷ 2

B x plus 2

C x minus 2

D 2x

Understand It with Pulse | Flag a mistake

6 **A horizontal translation left 3 replaces x with**

- A x plus 3
- B x minus 3
- C 3x
- D x ÷ 3

Understand It with Pulse | Flag a mistake

7 **A vertical stretch does not change the**

- A range
- B x intercepts of the base graph in general position for a stretch about the x axis
- C y intercept
- D vertex height

Understand It with Pulse | Flag a mistake

8 **For the function f(x) = the square root of x + 5 , the value at x = 4 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **For the function f(x) = the |x - 2| , the value at x = 7 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **For the function f(x) = |x + 3|, the value at x = -8 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **For the function y = the absolute value of x - 4 , the value at x = 1 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **For the function y = |x|, the value at x = -6 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **Reflecting a graph in the y axis maps a point x comma y to**

A -x comma negative y

B -x comma y

C x comma negative y

D y comma x

Understand It with Pulse | Flag a mistake

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

- A origin only
- B y axis
- C x axis
- D line y = x

Understand It with Pulse | Flag a mistake

**15** **The graph of y = f(x) + 2 has its domain**

- A doubled
- B halved
- C unchanged from f
- D shifted up 2

Understand It with Pulse | Flag a mistake

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

A x axis

B y axis

C line y equals x

D line y equals -x

Understand It with Pulse | Flag a mistake

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

A vertically by a factor of one half

B reflected only

C vertically by a factor of 2

D horizontally by a factor of 2

Understand It with Pulse | Flag a mistake

18 **The order of transformations matters because**

A all orders give the same graph

B shifts never matter

C stretches never matter

D a shift then a stretch can differ from a stretch then a shift

Understand It with Pulse | Flag a mistake

19 **The point 3 comma 5 on f moves to this x coordinate under a shift right 2**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **For g(x) = f(x) - 4 , where f(6) = 10 , the value of g at 6 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **For g(x) = 3f(x - 2) + 1, where f(x) = x², the value of g at x = 4 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **For the function y = the square root of x + 1 , the value at x = 8 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **The graph of y = f(x) - 3 is the graph of f shifted**

A left 3 units

B up 3 units

C down 3 units

D right 3 units

Understand It with Pulse | Flag a mistake

24 **For g(x) = -f(x) , where f(3) = 8 , the value of g at 3 is**

ANSWER

Understand It with Pulse | Flag a mistake

25 **For g(x) = -f(x) + 5, where f(x) = $x^2$, the value of g at x = 2 is**

ANSWER

Understand It with Pulse | Flag a mistake

# ANSWER KEY

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

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