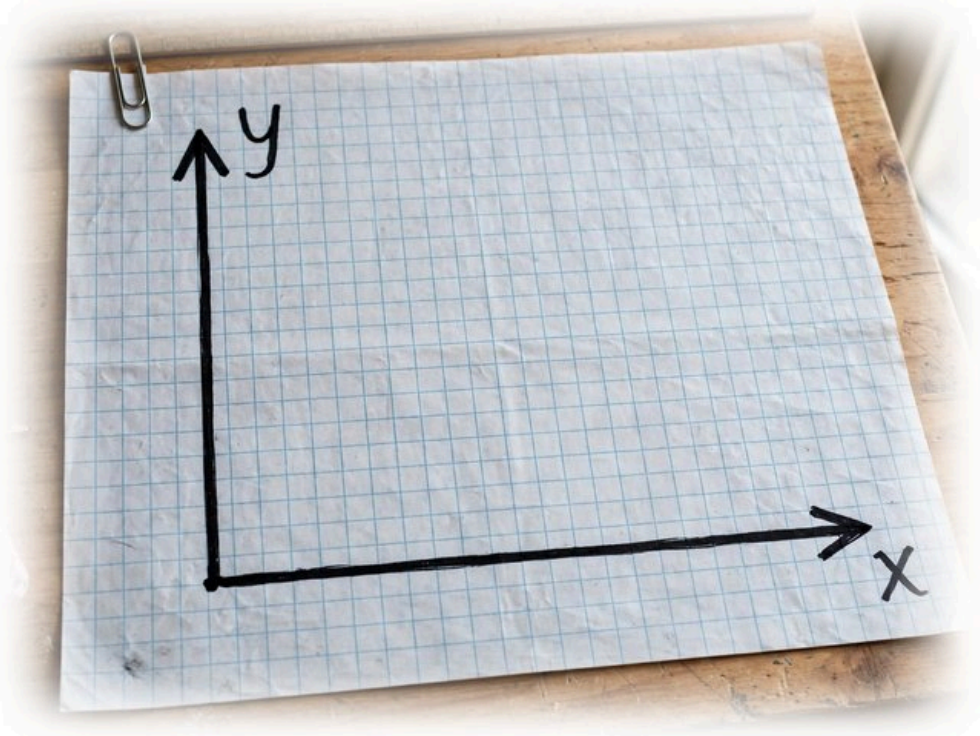
NEWFOUNDLAND AND LABRADOR MATHEMATICS 3200 · UNIT A · 25 QUESTIONS

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 **The point (2, 5) lies on the graph of f . Under y = 2f(x - 1) + 3 , its image is**



A (3, 13)

B (1, 13)

C (3, 7)

D (3, 8)

Understand It with Pulse

Flag a mistake

2 **If f(3) = 6 and g(x) = 3f(x) , then g(3) is**

ANSWER

Understand It with Pulse | Flag a mistake

3 **The domain of $y = \sqrt{x - 4} + 1$ is**

A $x \geq 4$

B $x \geq -4$

C $x > 4$

D $x \leq 4$

Understand It with Pulse | Flag a mistake

4 **The graph of f is shifted right 4 units and down 3 units. The new equation is**



A f(x + 4) - 3

B f(x - 4) - 3

C f(x - 4) + 3

D f(x) - 3

Understand It with Pulse | Flag a mistake

5 **The graph of $y = 3f(x + 2) - 1$ is obtained from the graph of f by a transformation that is**

A stretched vertically by 3, shifted left 2 units, shifted down 1 unit

B shifted left 5 units and down 4 units

C stretched horizontally by a factor of 3 and shifted right 2 units

D reflected in the y axis and shifted down 2 units

Understand It with Pulse | Flag a mistake

6 **Compared with the graph of f , the graph of y = f(2x) is**



A compressed horizontally by a factor of 2

B stretched horizontally by a factor of 2

C compressed vertically by a factor of 2

D shifted left 2 units

Understand It with Pulse | Flag a mistake

7 **The domain of y = 1/x - 5 is all real numbers except**

A x = -5

B x = 5

C x = 0

D x = 1

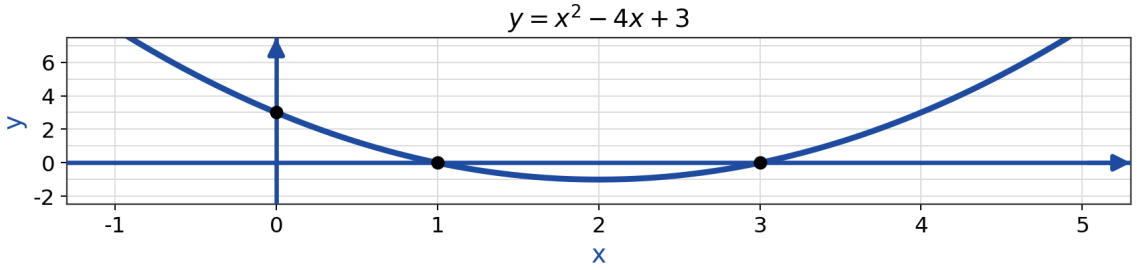
Understand It with Pulse | Flag a mistake

8 **The point (-1, 3) lies on the graph of f . Under y = 2f(x + 2) - 5 , the image has y coordinate**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **The graph shows a parabola. Its vertex is**



A (2, -1)

B (2, 1)

C (-2, -1)

D (4, 3)

Understand It with Pulse | Flag a mistake

10 **The vertex of the parabola $y = (x - 3)^2 + 5$ is**



A (3, 5)

B (-3, 5)

C (3, -5)

D (5, 3)

Understand It with Pulse | Flag a mistake

11 **The point (1, 4) lies on the graph of f . Under y = 3f(x - 2) + 1 , its image is**

- A (-1, 13)
- B (3, 13)
- C (3, 11)
- D (3, 5)

Understand It with Pulse | Flag a mistake

12 **If f(3) = -2 and g(x) = -4f(x) , then g(3) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 The domain of $y = \sqrt{x + 3} + 1$ is

- **A** $x \geq 3$
- **B** $x \geq -3$
- **C** $x > -3$
- **D** $x \leq -3$

Understand It with Pulse | Flag a mistake

14 The graph of f is shifted right 2 units and down 5 units. The new equation is

- **A** $f(x - 2) - 5$
- **B** $f(x + 2) - 5$
- **C** $f(x - 2) + 5$
- **D** $-f(x - 2)$

Understand It with Pulse | Flag a mistake

15 **The graph of y = f(x - 5) + 4 is obtained from the graph of f by a transformation that is**



A shifted right 5 units and up 4 units

B shifted left 5 units and down 4 units

C stretched horizontally by a factor of 3 and shifted right 2 units

D reflected in the y axis and shifted down 2 units

Understand It with Pulse | Flag a mistake

16 **Compared with the graph of f , the graph of y = f(4x) is**

A stretched horizontally by a factor of 4

B compressed horizontally by a factor of 4

C compressed vertically by a factor of 4

D shifted left 4 units

Understand It with Pulse | Flag a mistake

17 **The domain of y = 1/x + 4 is all real numbers except**

A x = 4

B x = -4

C x = 0

D x = 1

Understand It with Pulse | Flag a mistake

18 **The point (2, -4) lies on the graph of f . Under y = -2f(x + 1) - 3 , the image has y coordinate**

ANSWER

Understand It with Pulse | Flag a mistake

19 **The point (-3, 2) lies on the graph of f . Under y = 2f(x - 4) + 5 , its image is**

A (-7, 9)

B (1, -1)

C (1, 9)

D (1, 7)

Understand It with Pulse | Flag a mistake

20 **If f(3) = 5 and g(x) = 2f(x) , then g(3) is**

ANSWER

Understand It with Pulse | Flag a mistake

21 The domain of $y = \sqrt{x - 7} + 1$ is

- A $x \geq 7$
- B $x \geq -7$
- C $x > 7$
- D $x \leq 7$

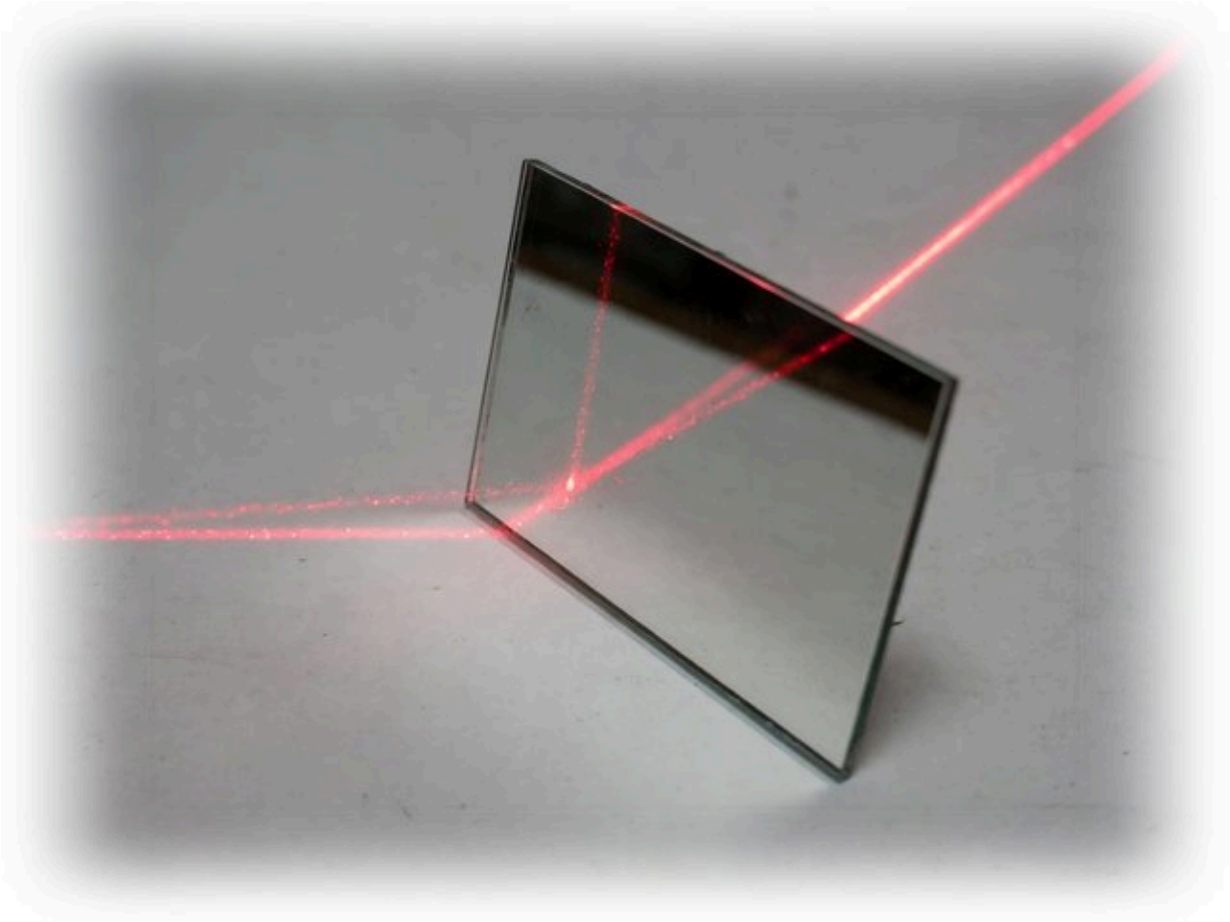
Understand It with Pulse | Flag a mistake

22 The graph of f is shifted right 3 units and down 1 units. The new equation is

- A $f(x + 3) - 1$
- B $f(x - 3) + 1$
- C $f(x - 3) - 1$
- D $f(x - 3)$

Understand It with Pulse | Flag a mistake

23 **The graph of y = -f(x) + 2 is obtained from the graph of f by a transformation that is**



A shifted left 5 units and down 4 units

B stretched horizontally by a factor of 3 and shifted right 2 units

C reflected in the x axis and shifted up 2 units

D reflected in the y axis and shifted down 2 units

Understand It with Pulse | Flag a mistake

24 **The point (0, -2) lies on the graph of f . Under y = 3f(x - 3) + 2 , its image is**

- A (-3, -4)
- B (3, -8)
- C (3, 0)
- D (3, -4)

Understand It with Pulse | Flag a mistake

25 **The point (6, 4) lies on the graph of f . Under y = f(3x) , its image is**

- A (2, 4)
- B (18, 4)
- C (6, 12)
- D (2, -4)

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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