Task card 1 Transformations of Functions

The graph of y = |x| is stretched vertically by a factor of 3, shifted 1 unit right, then shifted 5 units up. Write the equation of the new graph.

Task card 2 Transformations of Functions

The point (4, -1) is on the graph of y = f(x). Which point must be on the graph of g(x) = -f(x + 4) - 1?

Task card 3 Transformations of Functions

The point (0, -2) is on the graph of y = f(x). Which point must be on the graph of g(x) = 2f(x) + 1?

Task card 4 Transformations of Functions

The graph of $y = x^3$ is shifted 3 units right, then shifted 6 units down. Write the equation of the new graph.

Task card 5 Transformations of Functions

The point (2, -3) is on the graph of y = f(x). Which point must be on the graph of g(x) = f(x - 3) + 4?

Task card 6 Transformations of Functions

The graph of y = |x| is stretched vertically by a factor of 3, shifted 2 units right, then shifted 3 units up. Write the equation of the new graph.

Task card 7 Transformations of Functions

The graph of $y = x^3$ is stretched vertically by a factor of 2, shifted 3 units left, then shifted 3 units up. Write the equation of the new graph.

Task card 8 Transformations of Functions

The point (0, -3) is on the graph of $y = f(x)$. Which point must be on the graph of $g(x) = -f(x - 2) + 5$?

Task card 9 Transformations of Functions

The point (1, 2) is on the graph of $y = f(x)$. Which point must be on the graph of $g(x) = -2f(x - 3)$?

Task card 10 Transformations of Functions

The graph of $y = x^2$ is stretched vertically by a factor of 3, shifted 4 units right, then shifted 5 units up. Write the equation of the new graph.

Task card 11 Transformations of Functions

The point (5, 1) is on the graph of $y = f(x)$. Which point must be on the graph of $g(x) = f(x + 3) + 4$?

Task card 12 Transformations of Functions

The graph of $y = x^2$ is shifted 5 units left, then shifted 2 units up. Write the equation of the new graph.

Task card 13 Transformations of Functions

The graph of $y = x^2$ is stretched vertically by a factor of 2, then shifted 4 units left. Write the equation of the new graph.

Task card 14 Transformations of Functions

The point (-5, -5) is on the graph of y = f(x). Which point must be on the graph of g(x) = f(x - 3) + 5?

Task card 15 Transformations of Functions

The point (1, 3) is on the graph of y = f(x). Which point must be on the graph of g(x) = 2f(x - 5) - 5?

Task card 16 Transformations of Functions

The graph of $y = x^2$ is shifted 6 units left, then shifted 6 units down. Write the equation of the new graph.

Task card 17 Transformations of Functions

The point (-5, -2) is on the graph of y = f(x). Which point must be on the graph of g(x) = f(x + 5) - 1?

Task card 18 Transformations of Functions

The graph of $y = x^2$ is reflected across the x-axis, stretched vertically by a factor of 2, then shifted 4 units up. Write the equation of the new graph.

Task card 19 Transformations of Functions

The graph of $y = x^2$ is reflected across the x-axis, stretched vertically by a factor of 2, shifted 4 units right, then shifted 6 units down. Write the equation of the new graph.

Task card 20 Transformations of Functions

The point (-3, -1) is on the graph of y = f(x). Which point must be on the graph of g(x) = 2f(x + 2) - 1?

Task card 21 Transformations of Functions

The point (2, -5) is on the graph of y = f(x). Which point must be on the graph of g(x) = 3f(x - 4) + 5?

Task card 22 Transformations of Functions

The graph of $y = x^2$ is stretched vertically by a factor of 3, shifted 2 units right, then shifted 3 units up. Write the equation of the new graph.

Task card 23 Transformations of Functions

The point (-1, 3) is on the graph of y = f(x). Which point must be on the graph of g(x) = -f(x - 3) + 4?

Task card 24 Transformations of Functions

The graph of $y = x^3$ is stretched vertically by a factor of 3, shifted 2 units left, then shifted 2 units down. Write the equation of the new graph.

Transformations of Functions Task Cards

Recording sheet · Grade 11 · Use the rules for shifts, stretches and reflections.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Transformations of Functions Task Cards: Answer Key

Grade 11 · Hard

The answers online

1. $y = 3\|x - 1\| + 5$	**2.** (0, 0)	**3.** (0, -3)
4. $y = (x - 3)^3 - 6$	**5.** (5, 1)	**6.** $y = 3\|x - 2\| + 3$
7. $y = 2(x + 3)^3 + 3$	**8.** (2, 8)	**9.** (4, -4)
10. $y = 3(x - 4)^2 + 5$	**11.** (2, 5)	**12.** $y = (x + 5)^2 + 2$
13. $y = 2(x + 4)^2$	**14.** (-2, 0)	**15.** (6, 1)
16. $y = (x + 6)^2 - 6$	**17.** (-10, -3)	**18.** $y = -2x^2 + 4$
19. $y = -2(x - 4)^2 - 6$	**20.** (-5, -3)	**21.** (6, -10)
22. $y = 3(x - 2)^2 + 3$	**23.** (2, 1)	**24.** $y = 3(x + 2)^3 - 2$