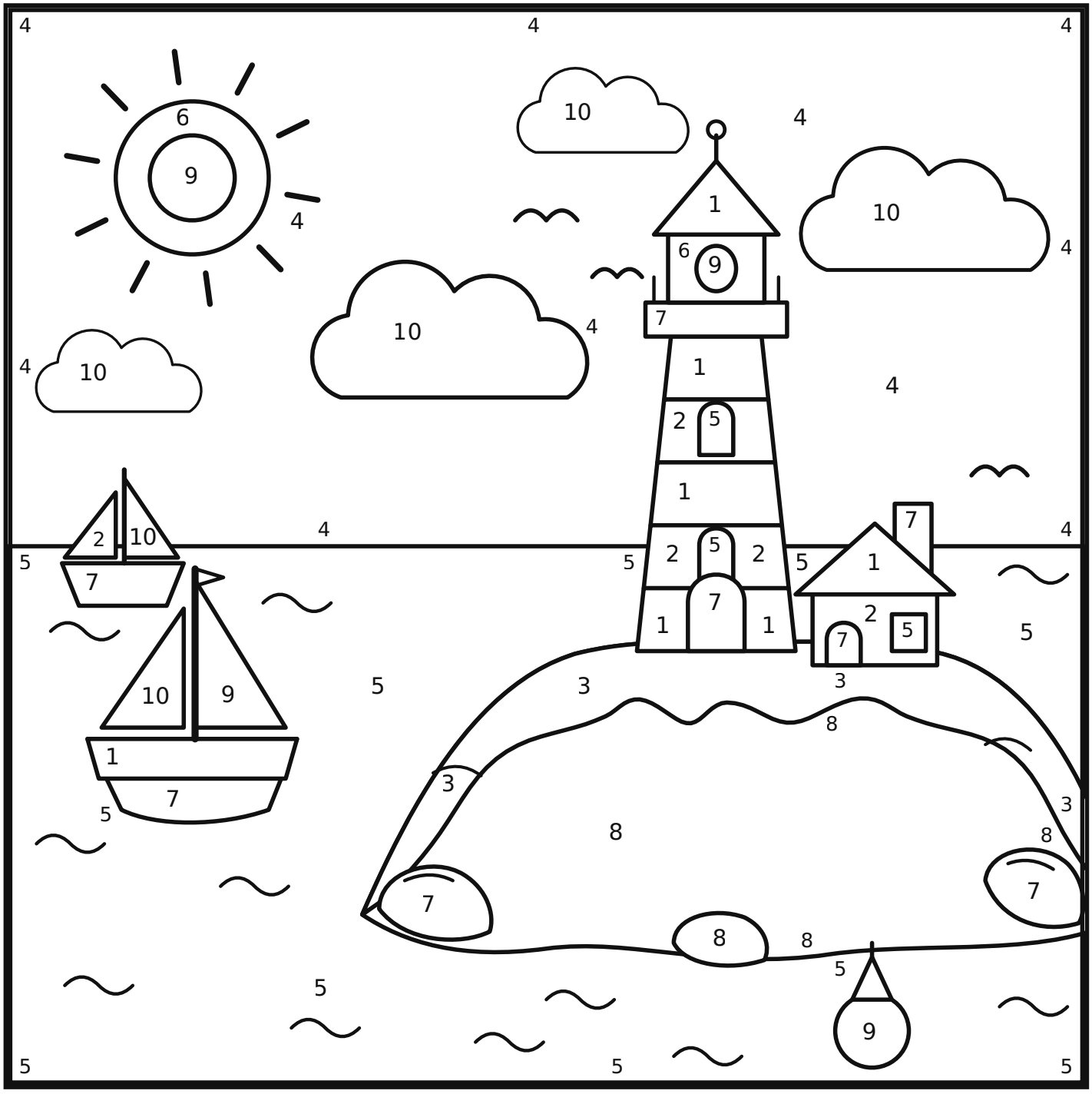
Name: _____ Date: _____

Functions & Transformations: Color By Number



Color Code:

_____ Orange 10	_____ Red 15	_____ Blue 5	_____ Pink 2	_____ Light Blue 9
_____ Yellow −6	_____ Tan −3	_____ Gray 11	_____ Brown 7	_____ Green −5

Name: _____ Date: _____

Functions & Transformations: Color By Number

Directions: Solve each problem and show your work in the box. Your answer should match one of the answers in the Color Code on the coloring sheet. Find the matching answer, write the problem number on its blank, then write the color on the line. Color every part of the picture with that number. Watch closely: the answers look alike!

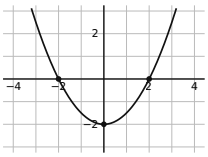
1.
Let $f(x) = 2x^2 - x$. Find $f(-3) - f(2)$.

1. Color: _____

2.
What is the smallest x-value in the domain of $f(x) = \sqrt{(4x + 12)} - 2$?

2. Color: _____

3.
The graph of $y = f(x)$ is shown. If $h(x) = 3f(x - 2) + 1$, find $h(2)$.



3. Color: _____

4.
The point $(-3, 4)$ is on $y = f(x)$. Find the x-coordinate of the matching point on $y = f(-\frac{x}{3})$.

4. Color: _____

5.
The graph of $y = \sqrt{x}$ is reflected in the x-axis, then shifted 5 units left and 7 units up to make g. Find $g(-1)$.

5. Color: _____

6.
Let $f(x) = \begin{cases} 2x + 7 & \text{if } x < -1 \\ x^2 - 5 & \text{if } -1 \le x \le 3 \\ 11 - x & \text{if } x > 3 \end{cases}$

Find $f(-1) + f(3) - f(5)$.

6. Color: _____

7.
Let $f(x) = 2x - 3$ and $g(x) = x^2 + 1$. Find $(f \circ g)(-2)$.

7. Color: _____

8.
Use the table to find $(f \circ g)(1) + (f \cdot g)(0)$.

x	-2	-1	0	1	2
$f(x)$	3	5	-2	4	1
$g(x)$	0	-2	-3	-1	3

8. Color: _____

9.
$T(c) = \frac{9}{5}c + 32$ converts °C to °F. Find $T^{-1}(50)$, the °C that equals 50°F.

9. Color: _____

10.
A \$60 jacket has a \$10 coupon, $c(p) = p - 10$, and 20% off, $s(p) = 0.8p$. How many dollars cheaper is the better order?

10. Color: _____