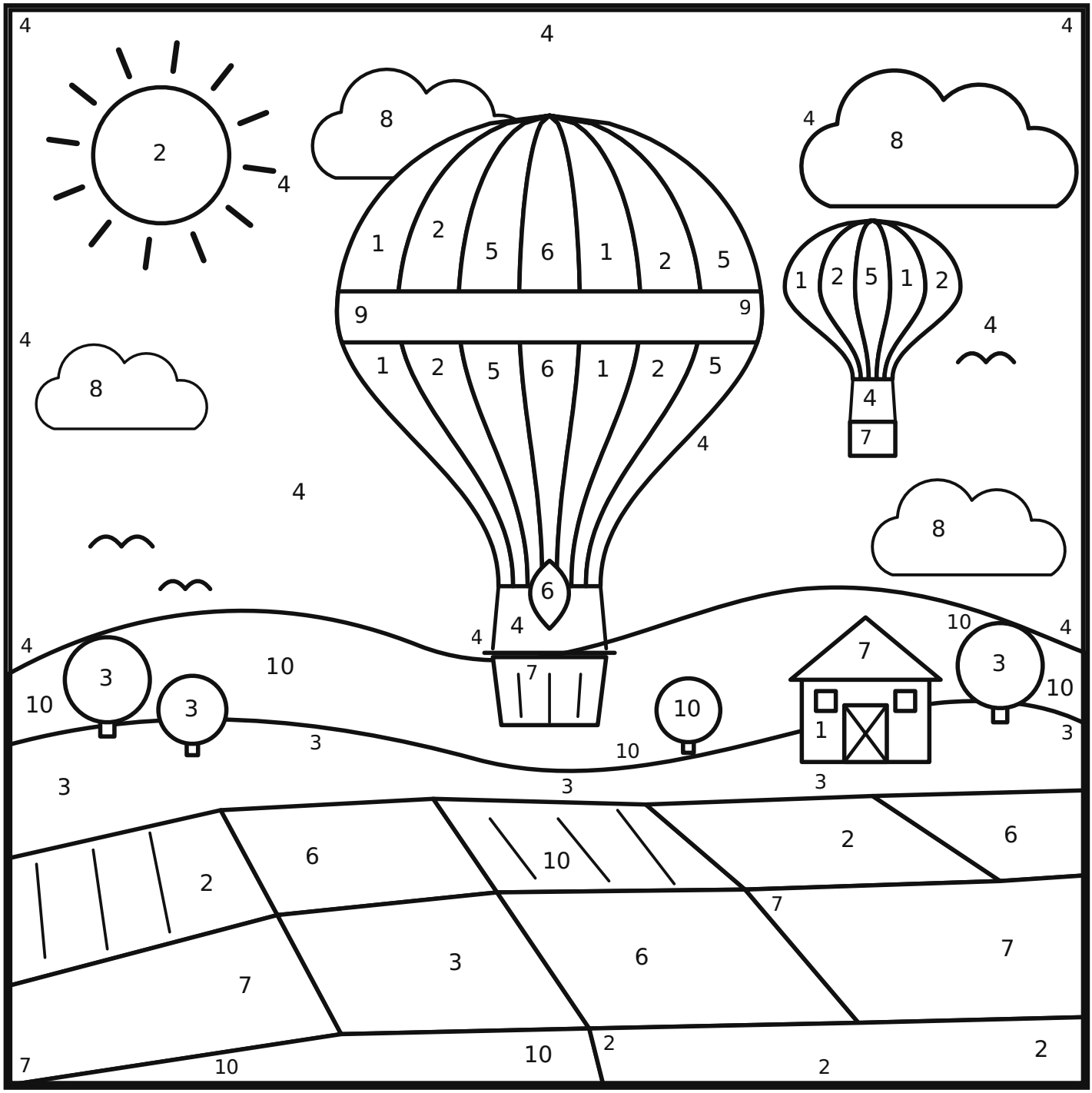
Name: _____ Date: _____

Linear Functions & Systems: Color By Number



Color Code:

_____ Pink 4	_____ Red −7	_____ Purple 15	_____ Dark Green 24	_____ Light Blue −5
_____ Orange −6	_____ Yellow 7	_____ Gray 42	_____ Brown 8	_____ Green 10

Name: _____ Date: _____

Linear Functions & Systems: 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.
The line through $(-2, 11)$ and $(4, k)$ has slope -3. Find k.

1. Color: _____

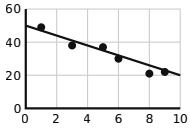
2.
A line is perpendicular to $3x - 4y = 8$ and passes through $(6, -1)$. Find its y-intercept.

2. Color: _____

3.
A line parallel to $2x + 5y = 7$ passes through $(-5, 4)$. Written as $2x + 5y = C$, what is C?

3. Color: _____

4.
Notebooks left, y, after x days of a sale: $\hat{y} = -3x + 50$. On day 8, 21 were left. Find the residual (actual − predicted).



4. Color: _____

5.
A plumber charges a flat fee plus a fixed rate per hour. A 2 hour job costs $95 and a 6 hour job costs $255. What is the flat fee in dollars?

5. Color: _____

6.
Solve by elimination: $4x + 3y = -1$ and $3x - 2y = 12$. Find the product xy.

6. Color: _____

7.
For what value of k does the system $6x - 3y = 12$ and $4x - 2y = k$ have infinitely many solutions?

7. Color: _____

8.
Scarf: 2 hours knitting, 1 finishing. Hat: 1 knitting, 2 finishing. Limits: 16 knitting, 14 finishing hours. Profit: $5 per scarf, $3 per hat. Find the maximum profit.

8. Color: _____

9.
Solve: $x + y + z = 5$, $2x - y + z = 9$, $x + 2y - z = -4$. Find z.

9. Color: _____

10.
Find the area of the shaded region (square units): $x \geq 0$, $y \geq 3$ and $3x + 4y \leq 36$.



10. Color: _____