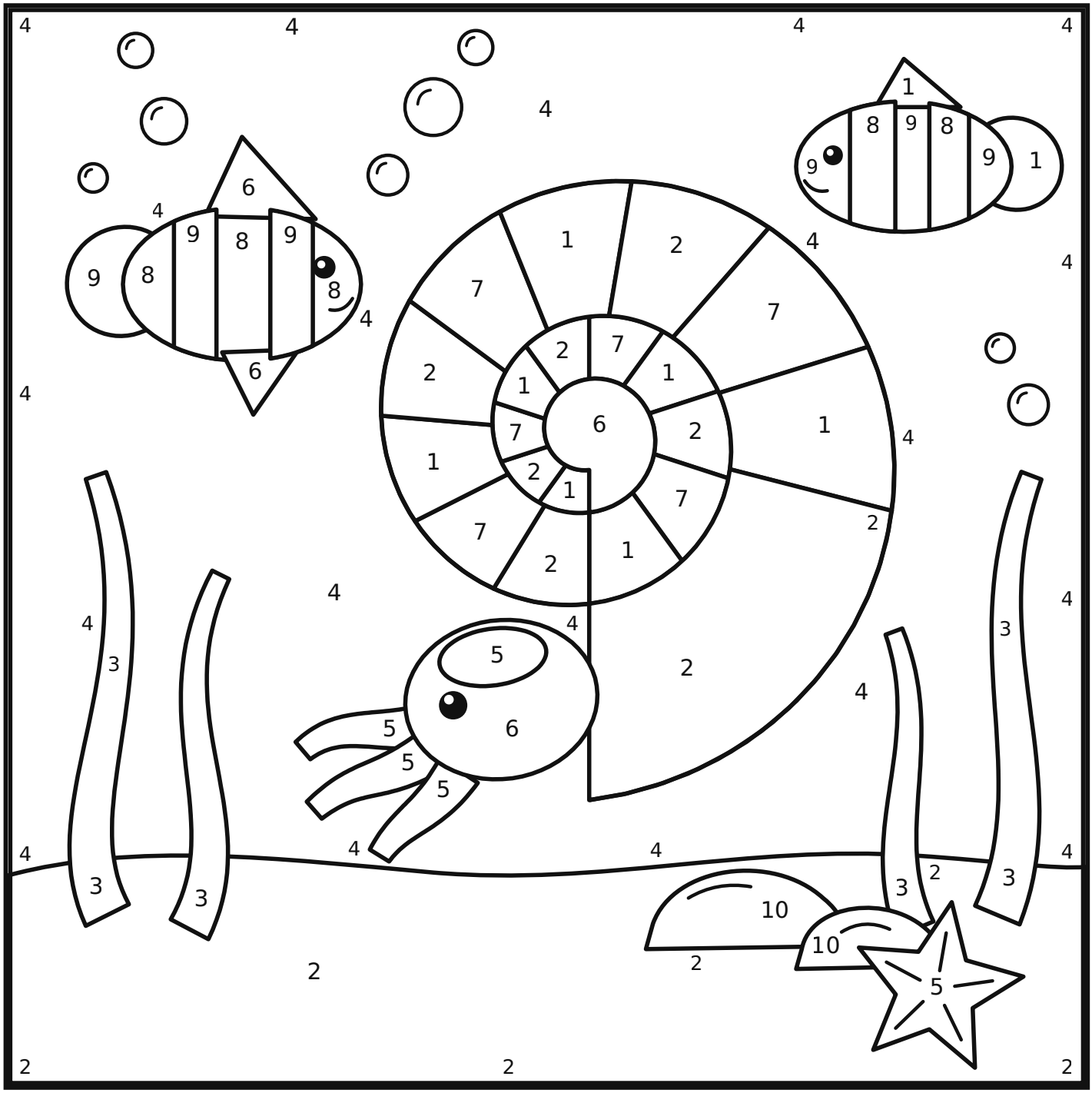
Name: _____ Date: _____

Exponential & Logarithmic Functions: Color By Number



Color Code:

_____ Purple $x = 16$	_____ Orange $x = 7$	_____ Red 3	_____ Gray $y = -5$	_____ Light Blue $x \approx 1.65$
_____ Pink $x = 1$ or $x = 2$	_____ Tan $\frac{5}{2}$	_____ Yellow $t \approx 46.2$	_____ Brown \$2,440.38	_____ Green $x = 5$

Name: _____ Date: _____

Exponential & Logarithmic Functions: 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.
Solve: $8^{x-1} = 4^{x+2}$

1. Color: _____

2.
Evaluate without a calculator: $\log_4 32$

2. Color: _____

3.
Solve: $\log_2(x+3) + \log_2(x-3) = 4$. Check for extraneous solutions.

3. Color: _____

4.
Solve: $5^{2x-1} = 40$. Round to the nearest hundredth.

4. Color: _____

5.
Evaluate: $3\log_5 10 - \log_5 8$

5. Color: _____

6.
Solve: $4^x - 6 \cdot 2^x + 8 = 0$

6. Color: _____

7.
$2,000 is invested at 4% annual interest compounded quarterly. Find the balance after 5 years, to the nearest cent.

7. Color: _____

8.
A 500 mg sample decays by $A = 500e^{-0.03t}$, (t in days). After how many days will 125 mg remain? Round to the nearest tenth.

8. Color: _____

9.
Solve for x: $\log_x 64 = \frac{3}{2}$

9. Color: _____

10.
Find the horizontal asymptote of $f(x) = -3 \cdot 2^{x+1} - 5$

10. Color: _____