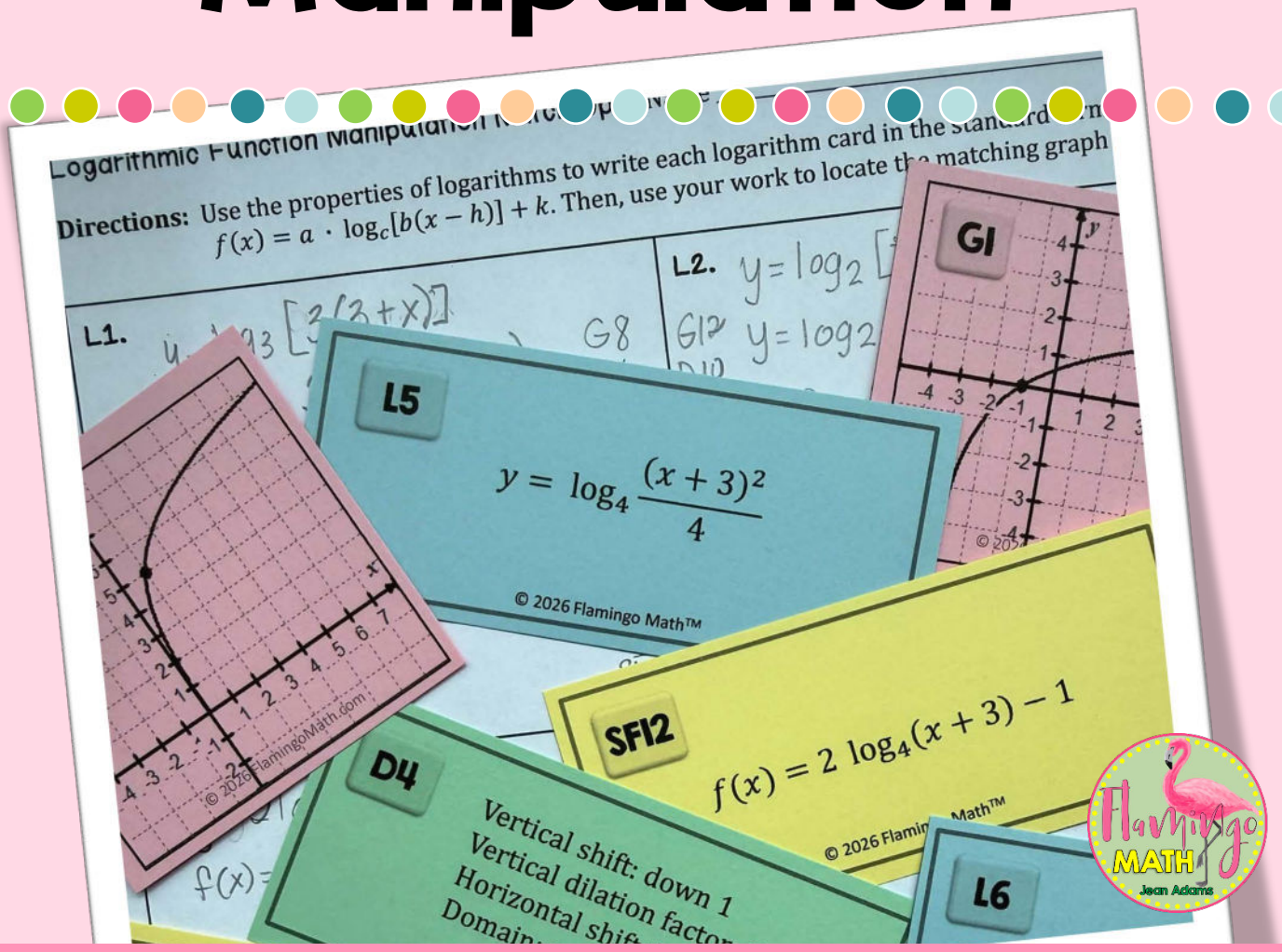
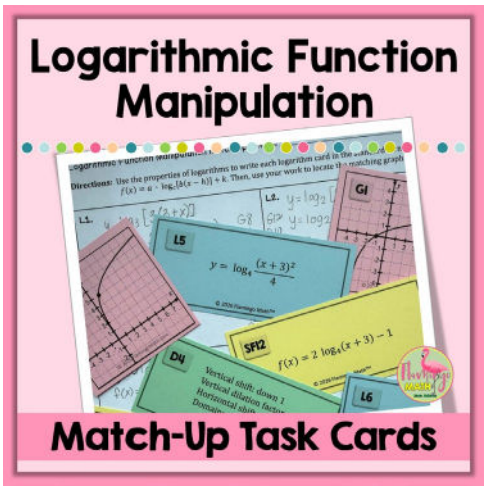
Logarithmic Function Manipulation



Match-Up Task Cards

Logarithmic Function Manipulation Match-Up



KEY CONCEPTS/TOPICS:

1. Logarithmic Function Manipulation
2. Match graph, equation, standard form, and description

GENERAL DIRECTIONS:

Students match a logarithmic graph card to the card that gives the corresponding standard form equation. Then, they find a description of the transformations and domain of the graph.

Product Overview

Logarithmic Function Manipulation Match-Up Activity

Here's a great activity to reinforce **Logarithmic Function Manipulation** and writing standard form of logarithmic functions along with function transformation behavior and domain. There are twelve logarithm equation cards, graph cards, standard form equation cards and description with domain cards. a student recording sheet to keep students accountable for their knowledge.

This activity is designed to help your **AP Precalculus** students with Logarithmic Function Manipulation, graphing, and describing transformations with domain restrictions. There are 48 cards in the activity. The cards are sorted into 4 sets: a logarithmic equation, a standard form equation, a graph and its corresponding behavior. Students will use properties of logarithms to write a standard form of the logarithmic function equation to match the graph and behavior.

Copy the task cards on card stock and laminate for durability. An answer key is included.

APPC CED TOPIC: 2.12.A; 2.12.A.1; 2.12.A.2; 2.12.A.3; 2.12.A.4

Please visit my store for more engaging task card activities.

L1 $y = \log_3(9 + 3x)$

L2 $y = \log_2(8 - 4x)$

L3 $y = \log_3 x^2$

L4 $y = \log_2 \frac{(x+3)^2}{4}$

L5 $y = \log_4 \frac{(x+3)^2}{4}$

L6 $y = \log_2(32x)$

L7 $y = \log_3 \frac{\sqrt{x}}{27}$

L8 $y = \log_2(4x + 8)$

D1 Vertical shift: down 3
Vertical dilation factor: $\frac{1}{2}$
Domain: $x > 0$

D2 Vertical shift: down 3
Domain: $x > 0$

D3 Reflect: over y-axis
Vertical shift: up 1
[illegible]

D4 Vertical shift: down 1
Vertical dilation factor: 2
Horizontal shift: left 3
Domain: $x > -3$

D5 Vertical shift: Up 6
Horizontal shift: left $\frac{1}{4}$
Domain: $x > -\frac{1}{4}$

D6 Vertical shift: up 1
Horizontal shift: left 3
Domain: $x > -3$

D7 Vertical shift: up 2
Horizontal shift: left 2
Domain: $x > -2$

D8 Vertical dilation factor: 5
Domain: $x > 0$

SF1 $f(x) = 5 + \log_2(x)$

SF2 [illegible]

SF3 $f(x) = 2 + \log_2[-1(x - 2)]$

SF4 $f(x) = \log_2(x) - 3$

SF5 $f(x) = 3 + \log_3[-1(x - 3)]$

SF6 $f(x) = \frac{1}{2}\log_3(x) - 3$

SF7 $f(x) = 5\log_3(x)$

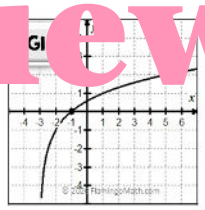
SF8 $f(x) = 6 + \log_2\left(x + \frac{1}{4}\right)$

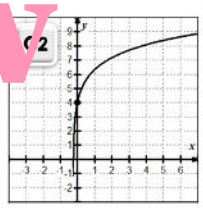
SF9 $f(x) = 2\log_2(x + 2)$

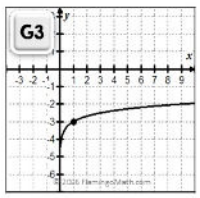
SF10 $f(x) = 1 + \log_3(x + 3)$

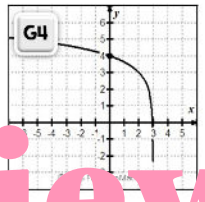
SF11 $f(x) = 1 + \log_5[-1(x - 5)]$

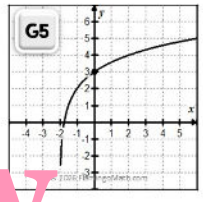
SF12 [illegible]

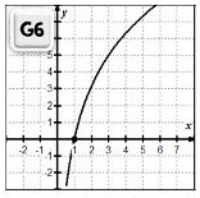
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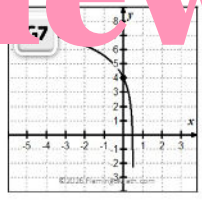
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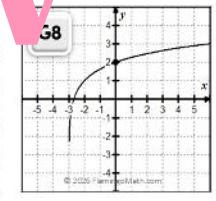
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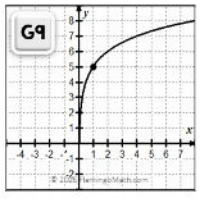
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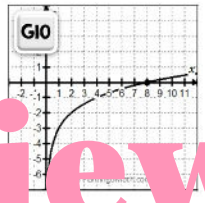
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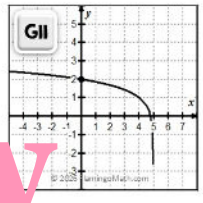
G6 

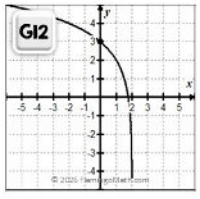
G7 

G8 

G9 

G10 

G11 

G12 

L2			
L3			
L4			
L5			
L6			
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