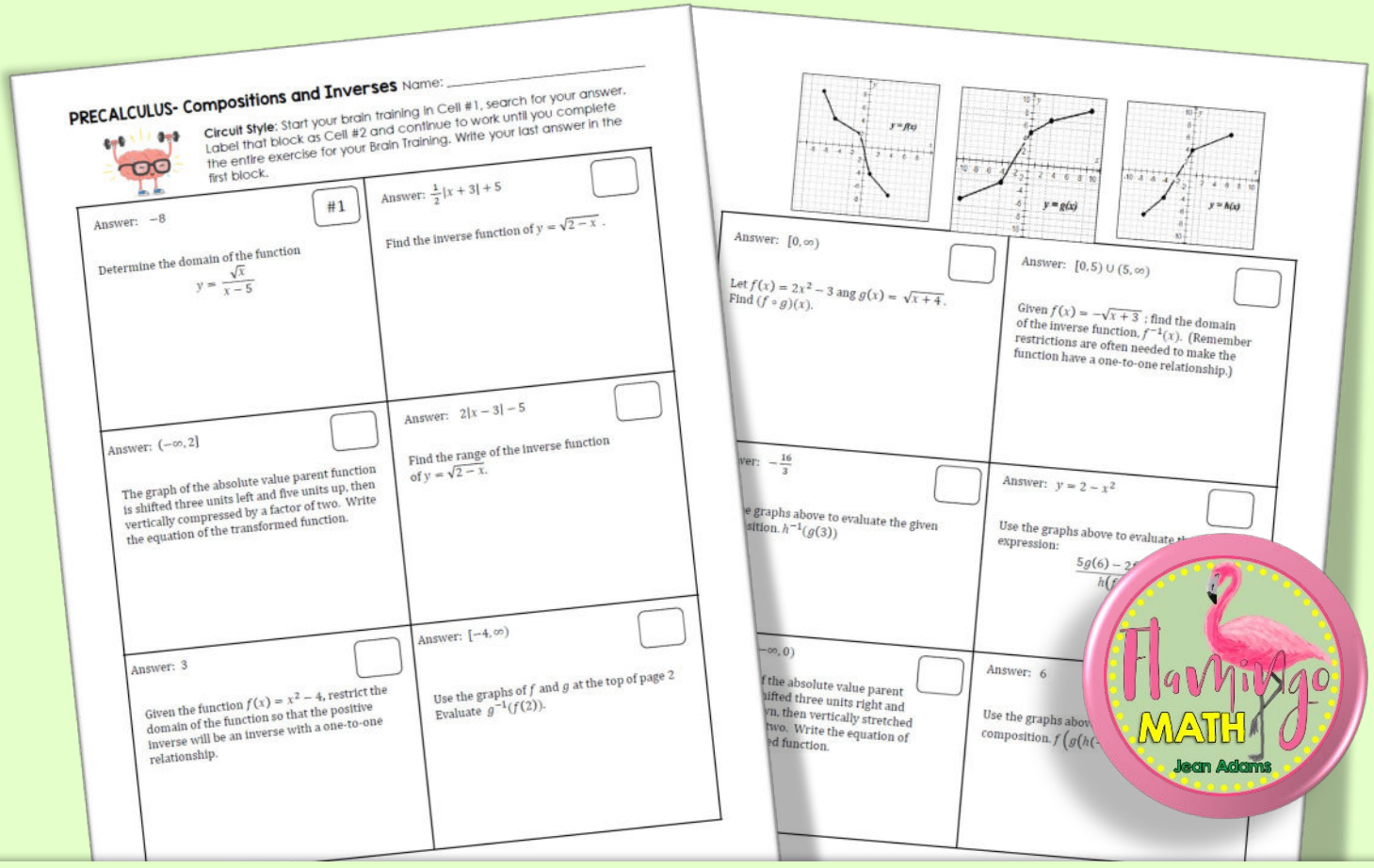
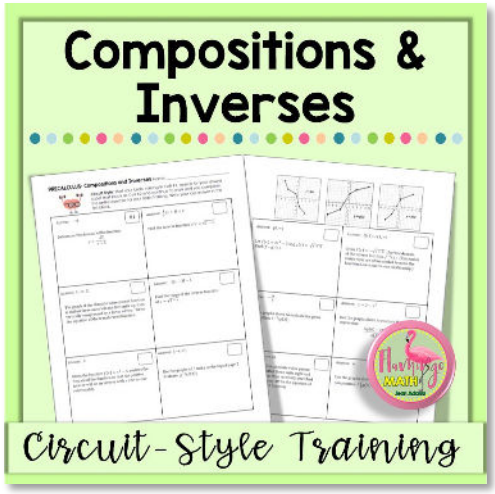
Compositions & Inverses



Circuit-Style Training

Compositions and Inverses Circuit



KEY CONCEPTS/TOPICS:

★ Perform operations on functions
★ Find a composition of one function with another function
★ Find inverse functions informally and algebraically
★ Find restricted domains for inverse functions

Product Overview

Compositions and Inverses Circuit-Style Training

This resource is designed to help your students gain proficiency in their ability find composition functions, evaluate composite functions graphically and algebraically in a scavenger-hunt type circuit activity.

This is a self-checking assignment in a "Circuit-style" training. Students start their brain training in Cell #1, then search for the answer. They label that block as Cell #2 and continue to work until they complete the entire exercise for the Brain Training Activity.

There are 12 question stems in the self-checking circuit.

STANDARDS ALIGNMENT:
CCSS: HSF.1F.A.2; HSF.BF.A.1.B; HSF.BF.A.1.C; HSF.BF.B.4.A; HSF.BF.B.4.B
TEKS: P.2.A, P.2.C, P.2E, P.2G, P.2I, P.2J, P.2K, P.2.L, P.2.M, P.2.N

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PRECALCULUS- Compositions and Inverses Name: _____



Circuit Style: Start your brain training in Cell #1, search for your answer. Label that block as Cell #2 and continue to work until you complete the entire exercise for your Brain Training. Write your last answer in the first block.

#1

Answer: -8

Determine the domain of the function

$$y = \frac{\sqrt{x}}{x-5}$$

Answer: $x^4 - 4x^2 + 2$

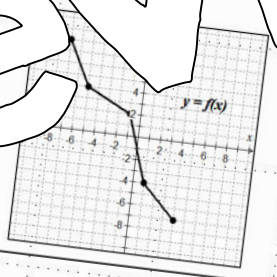
Find the inverse function of $y = \sqrt{2-x}$.

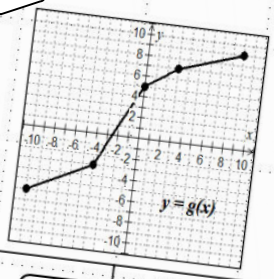
Answ

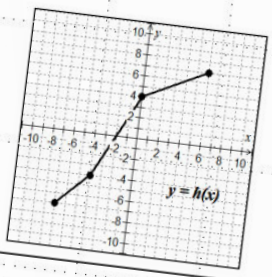
Give $= x^2 - 2$, $f \circ$

Answer: 3

Given the function $f($ domain of the functio inverse will be an inv relationship.







Answer: $[0, \infty)$

Let $f(x) = 2x^2 - 3$ and $g(x) = \sqrt{x+4}$. Find the domain for $(f \circ g)(x)$.

Answer: $[0, 5) \cup (5, \infty)$

Given $f(x) = -\sqrt{x+3}$; find the domain of the inverse function, $f^{-1}(x)$. (Remember restrictions are often needed to make the function have a one-to-one relationship.)

Answer: $-\frac{16}{3}$

Use the graphs above to evaluate the given composition. $h^{-1}(g(3))$

Answer: $y = 2 - x^2$

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$2($ $))$

$h($ $)$

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ven $x^2 - 2x - 3$ and $g(x) = 3x - 4$, find the ing:

$\cdot g(x) - 3f(x)$

Answer: 6

Use the graphs above to evaluate the given composition. $f\left(g(h(-4))\right)$

Preview
Preview