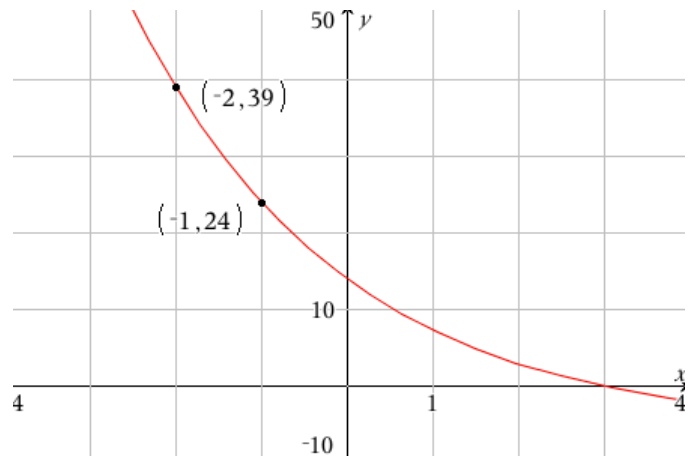


Scavenger Hunt

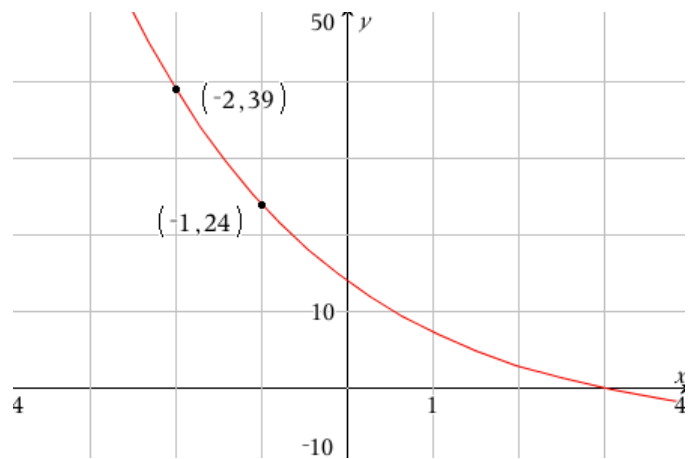
This is the graph of $y = a(b)^x - 6$



Go to ROOM: $(a+7)^b - 5$

Scavenger Hunt

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The remainder of this division problem is your next clue.

$$\frac{6x^4 + 11x^3 - 9x^2 - 14x + 122}{2x^2 + x - 3}$$

Scavenger Hunt

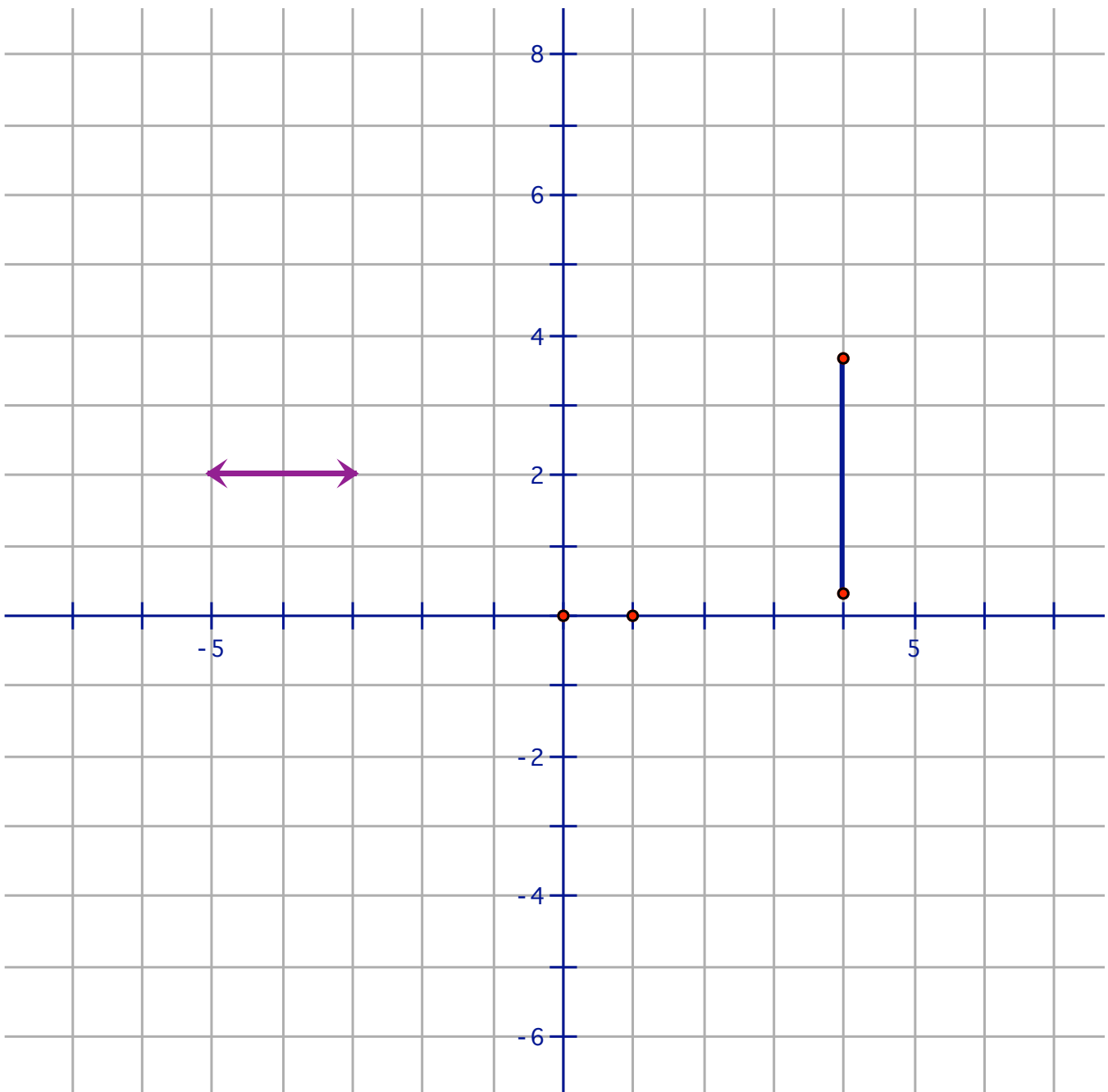
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Scavenger Hunt

Add the graph of the piecewise relation to the graph to reveal your clue.

$$\begin{cases} -2|x+4|+4 & \text{for } -6 < x < -2 \\ x^2 & \text{for } -2 \leq x \leq 2 \\ \sqrt{-(x-7)}+2 & \text{for } 3 < x < 7 \\ -\sqrt{-(x-7)}+2 & \text{for } 3 < x < 7 \end{cases}$$



Scavenger Hunt

Simplify $\sqrt[3]{6}(\sqrt[3]{9} + \sqrt[3]{72})$ to the form $b^a\sqrt{c}$.

Go to ROOM: $ab^c - (b + c)$

Scavenger Hunt

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Scavenger Hunt

Given $f(x) = x^2 - 10x + 21$

Go to ROOM: $12 \cdot f^{-1}(12) - 8$

Scavenger Hunt

Given $f(x) = x^2 - 10x + 21$

Go to ROOM: $12 \cdot f^{-1}(12) - 8$

Scavenger Hunt

Simplify: $\log_{36}(\log_2 64)$

GO TO ROOM: $(2^{10})^x - 9$

Scavenger Hunt

Simplify: $\log_{36}(\log_2 64)$

GO TO ROOM: $(2^{10})^x - 9$

Simplify each expression. Find the word that corresponds to each answer.

$$3 - i = \text{STUDY}$$

$$3i = \text{A}$$

$$-12i = \text{FINAL}$$

$$\frac{3}{1+i} = \text{AND}$$

$$\sqrt{-9}(1 - \sqrt{-4})$$

$$0 = \text{BREAK}$$

$$\frac{3}{1-i} = \text{THE}$$

$$2 - 12i = \text{CAFFEINE}$$

$$-6 + i = \text{EXAM}$$

$$\frac{10}{3+i}$$

$$6 - 3i = \text{ON}$$

$$3 - 4i = \text{OVER}$$

$$1 - 3i = \text{REVIEW}$$

$$\frac{2}{1+3i} = \text{TO}$$

$$6 + 3i = \text{EAT}$$

$$4 + 3i = \text{NO}$$

$$(3+i)^2 - 2(4-3i)$$

$$12i = \text{SLEEP}$$

$$-3i = \text{HOMEWORK}$$

$$3i - 6 = \text{CHOCOLATE}$$

$$\frac{i}{3} = \text{GRADE}$$

$$1 - 2i = \text{MAKE}$$