

Lesson: Values of Logarithms

Name _____

Directions: Use the clues to solve each puzzle. To find the correct number, cross out the answer to each clue in the square that is accounted for.

Your answer will be the number that is left. Use the QR Code to the right to check your answers.

0	1	-1
4	$\frac{3}{2}$	$-\frac{2}{3}$
-3	$-\frac{1}{2}$	$\frac{3}{4}$

It's not: $\log_4 8$ or $\log_4 \frac{1}{4}$
 It's not: $\log_4 \frac{1}{2}$ or $\log_4 256$
 It's not: $\log_4 4$ or $\log_4 \frac{1}{64}$
 It's not: $\log_4 1$ or $\log_4 2\sqrt{2}$

What is the number? _____

$-\frac{7}{2}$	1	-1
$\frac{1}{2}$	3	0
-4	$\frac{1}{4}$	$\frac{4}{3}$

It's not: $\ln e^3$ or $\ln e^{-4}$
 It's not: $\ln \frac{1}{e}$ or $\ln 1$
 It's not: $\ln \sqrt[4]{e}$ or $\ln \frac{1}{\sqrt{e^7}}$
 It's not: $\ln e$ or $\ln \sqrt[3]{e^4}$

What is the number? _____

$\log 3$	$\log 8$	$\log \frac{2}{3}$
$\log \frac{1}{2}$	$\log 4$	$\log \frac{8}{9}$
$\log 6$	$\log 2$	$\log 9$

It's not $\log 16 - \log 4$
 It's not $2 \log 12 - 4 \log 2$
 It's not $\log 6 + 2 \log 2 - \log 3$
 It's not $\log 8 - \log 12$
 It's not $\log 3 + \log 6 - \log 9$
 It's not $\log 24 - 3 \log 2$
 It's not $.5 \log 4 - 2 \log 3 + \log 4$
 It's not $3 \log 2 + 2 \log 3 - \log 12$

What is the number? _____

$2b - a$	$2b$	$3a$
$a + b$	$b - 2a$	$b - a$
$2a - b$	$a - b$	$2a$

If $\log 3 = a$ and $\log 6 = b$

It's not $\log 18$
 It's not $\log 2$
 It's not $\log \frac{1}{2}$
 It's not $\log 36$
 It's not $\log 9$
 It's not $\log 12$
 It's not $\log 27$
 It's not $\log \frac{3}{2}$

What is the number? _____

