



Logarithm Algebra (Product Property) - To Answer (Coefficient N)

$$1 \log_6(2w + 7) + \log_6(-6w - 9) = \log_6(9)$$

Use the product rule to simplify this to a quadratic and solve for 'w'

A	B	C
$w = -3$	$w = -6$	$w = -6$
$w = -2$	$w = -4$	$w = -6$

$$2 \log_{10}(-6z - 4) + \log_{10}(3z + 4) = \log_{10}(2)$$

Use the product rule to simplify this to a quadratic and solve for 'z'

A	B	C
$z = 1$	$z = -1$	$z = 2$

$$3 \log_3(-1m - 9) + \log_3(-1m - 8) = \log_3(6)$$

Use the product rule to simplify this to a quadratic and solve for 'm'

A	B	C
$m = -7$	$m = -11$	$m = -4$

$$4 \log_7(3y - 8) + \log_7(3y - 7) = \log_7(2)$$

Use the product rule to simplify this to a quadratic and solve for 'y'

A	B	C
$y = -3$	$y = 3$	$y = 9$

$$5 \log_9(7t + 8) + \log_9(-7t + 1) = \log_9(8)$$

Use the product rule to simplify this to a quadratic and solve for 't'

A	B	C
$t = -9$	$t = -1$	$t = 2$
$t = -10$	$t = 0$	$t = 6$

$$6 \log_9(q - 4) + \log_9(q - 5) = \log_9(6)$$

Use the product rule to simplify this to a quadratic and solve for 'q'

A	B	C
$q = 2$	$q = 7$	$q = 6$

$$7 \log_9(m + 4) + \log_9(m - 1) = \log_9(6)$$

Use the product rule to simplify this to a quadratic and solve for 'm'

A	B	C
$m = 2$	$m = 10$	$m = 9$

$$8 \log_5(-2m - 4) + \log_5(-2m - 2) = \log_5(8)$$

Use the product rule to simplify this to a quadratic and solve for 'm'

A	B	C
$m = -12$	$m = -3$	$m = -10$