



## Logarithm Algebra (Quotient Property) - To Quadratic (Coefficient 1)

$${}^1\log_7(p+4) - \log_7(p+1) = \log_7(1p)$$

Use the quotient rule to simplify this to a quadratic of variable 'p'

A	B	C
$-1p^2 + 0p + 4 = 0$	$-1p^2 + 1p + 2 = 0$	$0p^2 + 2p + 2 = 0$

$${}^2\log_3(n+9) - \log_3(n+9) = \log_3(1n)$$

Use the quotient rule to simplify this to a quadratic of variable 'n'

A	B	C
$-1n^2 - 9n + 13 = 0$	$-1n^2 - 7n + 8 = 0$	$-1n^2 - 8n + 9 = 0$

$${}^3\log_2(y+10) - \log_2(y+4) = \log_2(1y)$$

Use the quotient rule to simplify this to a quadratic of variable 'y'

A	B	C
$-1y^2 - 3y + 7 = 0$	$-2y^2 - 5y + 14 = 0$	$-1y^2 - 3y + 10 = 0$

$${}^4\log_2(t+3) - \log_2(t+3) = \log_2(-1t)$$

Use the quotient rule to simplify this to a quadratic of variable 't'

A	B	C
$t^2 + 5t + 6 = 0$	$t^2 + 4t + 3 = 0$	$0t^2 + 2t + 6 = 0$

$${}^5\log_3(t+10) - \log_3(t+10) = \log_3(1t)$$

Use the quotient rule to simplify this to a quadratic of variable 't'

A	B	C
$-1t^2 - 8t + 10 = 0$	$-1t^2 - 10t + 13 = 0$	$-1t^2 - 9t + 10 = 0$

$${}^6\log_7(y+6) - \log_7(y+4) = \log_7(-1y)$$

Use the quotient rule to simplify this to a quadratic of variable 'y'

A	B	C
$2y^2 + 6y + 5 = 0$	$y^2 + 5y + 6 = 0$	$0y^2 + 3y + 9 = 0$

$${}^7\log_4(z+8) - \log_4(z+8) = \log_4(-1z)$$

Use the quotient rule to simplify this to a quadratic of variable 'z'

A	B	C
$z^2 + 9z + 8 = 0$	$0z^2 + 7z + 11 = 0$	$0z^2 + 10z + 6 = 0$

$${}^8\log_2(x+5) - \log_2(x+5) = \log_2(1x)$$

Use the quotient rule to simplify this to a quadratic of variable 'x'

A	B	C
$-1x^2 - 3x + 8 = 0$	$-1x^2 - 4x + 5 = 0$	$-1x^2 - 4x + 6 = 0$