



Logarithm Algebra (Power Property) - Isolate Exponent, Two Binomials (Coefficient 1) to Partial Answer

1

Use the power rule to simplify this equation $2^{(q+4)} = 3^{(q+4)}$

Use the power rule to simplify this equation $4^{(p+7)} = 6^{(p+7)}$

$\overset{A}{(4q+1)} \ln 2 = (4q+1) \ln 3$	$\overset{B}{(q+4)} \ln 2 = (q+4) \ln 3$	$\overset{A}{(p+7)} \ln 4 = (p+7) \ln 6$	$\overset{B}{(p-7)} \ln 4 = (p-7) \ln 6$
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$\overset{C}{(q-4)} \ln 2 = (q-4) \ln 3$	
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$\overset{C}{(7p+1)} \ln 4 = (7p+1) \ln 6$	
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3

Use the power rule to simplify this equation $3^{(z-5)} = 6^{(z-2)}$

4

Use the power rule to simplify this equation $9^{(y+1)} = 7^{(y+4)}$

$\overset{A}{(z-5)} \ln 3 = (z-2) \ln 6$	$\overset{B}{(z+5)} \ln 3 = (z+2) \ln 6$	$\overset{A}{(y-1)} \ln 9 = (y-4) \ln 7$	$\overset{B}{(y+1)} \ln 9 = (4y+1) \ln 7$
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$\overset{C}{(-5z+1)} \ln 3 = (-2z+1) \ln 6$	
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$\overset{C}{(y+1)} \ln 9 = (y+4) \ln 7$	
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5

Use the power rule to simplify this equation $2^{(r+5)} = 10^{(r+9)}$

6

Use the power rule to simplify this equation $9^{(q+5)} = 7^{(q-4)}$

$\overset{A}{(r+5)} \ln 2 = (r+9) \ln 10$	$\overset{B}{(5r+1)} \ln 2 = (9r+1) \ln 10$	$\overset{A}{(5q+1)} \ln 9 = (-4q+1) \ln 7$	$\overset{B}{(q+5)} \ln 9 = (q-4) \ln 7$
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$\overset{C}{(r-5)} \ln 2 = (r-9) \ln 10$	
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$\overset{C}{(q-5)} \ln 9 = (q+4) \ln 7$	
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7

Use the power rule to simplify this equation $9^{(w-8)} = 7^{(w-6)}$

8

Use the power rule to simplify this equation $2^{(y-6)} = 10^{(y-5)}$

$\overset{A}{(w+8)} \ln 9 = (w+6) \ln 7$	$\overset{B}{(-8w+1)} \ln 9 = (-6w+1) \ln 7$	$\overset{A}{(y+6)} \ln 2 = (y+5) \ln 10$	$\overset{B}{(y-6)} \ln 2 = (y-5) \ln 10$
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$\overset{C}{(w-8)} \ln 9 = (w-6) \ln 7$	
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$\overset{C}{(-6y+1)} \ln 2 = (-5y+1) \ln 10$	
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