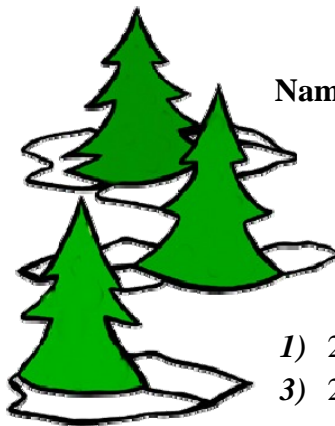


Logging Time

Directions: Solve each question and place the answer in the indicated row and column of the puzzle. When finished, solve the remaining Sudoku puzzle.

	A	B	C	D	E	F	G	H	I
1						5			8
2	7				6				
3						8	9	3	
4							3		9
5		5				6	4		2
6			6		1			5	
7	1	2			4	3			
8				1					
9			4	6	8				1

Name _____



1. Solve for x : $\log_5 25 = x$

C - 1

2. Which choice is the expanded form of $\ln[(x-3)(4x+1)]^2$

I - 8

- 1) $2\ln(x-3) + \ln(4x+1)$ 2) $2[\ln(x-3) + 2\ln(4x+1)]$
 3) $2[\ln(x-3) + \ln(4x+1)]$ 4) $2[\ln(x-3) - \ln(4x+1)]$

3. Find x : $\log 10^{16} = 2x$

A - 4

4. Evaluate: $\ln(e^6)$

G - 7

5. Find x : $\ln 4^4 = \ln 2^x$

D - 5

6. Find x to the nearest integer: $e^{6x} = 358,700$

G - 8

7. Find x to the nearest integer: $x = \log 8000$

F - 6

8. Find x : $\log_3(x+2) = 2$

E - 3

9. Find x : $\log x = \frac{1}{3} \log 64$

A - 3

10. Which choice is equivalent to $y = \log_5 x$?

B - 3

- 1) $x = 5^y$ 2) $y = 5^x$ 3) $x = 5 \log y$ 4) $y = \log x^5$

11. Find $f(3)$ when $f(x) = e^{2\ln x}$.

F - 8

12. Given $f(x) = e^{5x}$, find $\ln(f(1))$.

A - 9

13. Find x : $\log_4(x+7) = 2$

B - 6

14. If $\log(x^3(x-2)^2)$ is expanded to

$M \log x + N \log(x-2)$, what is the sum of M and N ?

G - 2

15. Find x to the nearest integer: $3 \ln 9x = 12$

H - 4

