



## 6.5 Puzzle Time

### What Type Of Amphibian Loves To Tell Jokes?

Write the letter of each answer in the box containing the exercise number.

**Match the expression with the logarithm that has the same value.**

1.  $\log_2 6 + \log_2 8$

2.  $\log_3 10 - \log_3 5$

3.  $4 \log_{1/2} 2$

4.  $\log_2 2 - \log_2 3$

5.  $\log_3 4 + \log_3 2$

6.  $6 \log 8$

#### Answers

I.  $\log_{1/2} 16$

A.  $\log_2 48$

M.  $\log \frac{16}{5}$

Y.  $\log(8^6)$

E.  $\log \frac{5}{2}$

S.  $\log_3 2$

N.  $\log 6$

L.  $\log_2 \frac{2}{3}$

L.  $\log_3 8$

A.  $\log \frac{12}{7}$

D.  $\log 2$

R.  $\ln \frac{3x^4}{y}$

**Condense the logarithmic expression.**

7.  $4 \log 2 - \log 5$

8.  $\log 6 + \log 2 - \log 7$

9.  $\frac{1}{2} \log 4 + \log 3$

10.  $3 \log 2 - 2 \log 2$

11.  $1 - \log 4$

12.  $\ln 3 + 4 \ln x - \ln y$

1		2	3	4	5	6	7	8	9	10	11	12
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