

Warm Up: Pre-Calc

10/9

Expand:

1)  $2\log_8(7 \cdot 3 \cdot 10)$

2)  $\log_3 \frac{b^6}{a^3}$

$$6\log_3 b - \log_3 a^3$$
$$6\log_3 b - 3\log_3 a$$

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Solutions to P.W.:

9)  $\log_4 7 + \frac{\log_4 10}{3} + \frac{\log_4 3}{3}$

10)  $12\log_5 x + 2\log_5 y$

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Solutions to P.W.:

$$11) 5 \log_9 z + \frac{\log_9 x}{3}$$

$$12) 2 \log a - 4 \log b$$

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Solutions to P.W.:

$$13) \log_8 (w \sqrt{vu})$$

$$14) \log_9 (bac^2)$$

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Solutions to P.W.:

$$15) \log (b^6 a^2)$$

$$16) \log_9 \frac{u^3}{v^9}$$

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W.A.L.T.:

Use the change of base formula.

W.A.S.I.:

We can use the change of base formula and get a solution to a log using any calculator.

Mar 7-9:45 AM

**In Class Work:**

Evaluate using you calculator.

$$1) \log_8(28) = 1.602$$

$$2) 3\log_5(16) = 5.168$$

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Common logarithm and natural logarithm functions are typically built into calculator systems. However, it is possible to use a calculator to evaluate logarithms in other bases by using the Change of Base Formula.

But like....how do you do it then?

Oct 9-10:26 AM

**Notes!!!** Change of Base Formula!

$$\log_b x = \frac{\log x}{\log b}$$

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**In Class Work:**

Evaluate using you calculator.

1)  $\log_8(28)$

2)  $3\log_5(16)$

$$3 \log 16 \frac{\log(16)}{\log 5}$$

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Today's Activities:

- Change of Base

P.W. for tonight:

- Worksheet #17 - 26

Feb 27-7:23 AM