

Name: _____

Show work needed to justify your answer.

Date: _____

HW: # 39e: Math IBSL - Standard 38 - Logarithms

5 points

1 Find the value of each of these expressions.

a $\log_3 8$ **b** $\log_6 24$ **c** $\log_5 8$

d $\log_3 30$ **e** $\log_7 \frac{1}{4}$ **f** $\log_2 \frac{3}{5}$

2 If $p = \log_3 A$ and $q = \log_3 B$, find $\log_A B$ in terms of p and q .

3 If $\log_x 3 = r$ and $\log_x 6 = s$, write each of these expressions in terms of r and s :

a $\log_3 6$ **b** $\log_6 3$ **c** $\log_3 36$ **d** $\log_3 54$

e $\log_9 6$ **f** $\log_6 18$ **g** $\log_3 2$
