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| **“Log Rules”** | |
| 1. because | 5.  because |
| 2. because | 6.  because |
| 3. because | 7. |
| 4.  because | 8. |

1. Evaluate. Use your calculator to approximate these to 4 decimal places.

(a)  (b)  (c) logπe (d) log 2 + log 5

(d)  (e)  (f) 

2. Use the log rules to write each expression as a single logarithm.

(a)  (b) 

3. Write each expression as a sum and/or difference of logarithms. Express powers as factors.

(a)  (b) 

4. Solve for x. Give exact answers, if possible. Otherwise, use your calculator to give

approximate solutions correct to 4 decimal places.

(a)  (b) 

(c)  (d) 

(e)  (f) ln (2x – 1) – ln (x – 2) = ln 3

5. How would you enter y = log2x on a graphing calculator?   
  
 What about y = log5x?