GAMSAT Section 3:
Logs & Anti-logs Practice

Being able to calculate logarithms in your head can be a helpful skill for solving many GAMSAT questions relating to pH, pKa and other topics. If you get stuck, I recommend watching these tutorial videos:

- Logs - https://www.youtube.com/watch?v=XDoFKQmOZbk
- Antilogs - https://www.youtube.com/watch?v=daEACIh9rg4

1) $-\log(0.001)$
2) $-\log(1 \times 10^{-4})$
3) $-\log(1 \times 10^{-11})$
4) $-\log(1 \times 10^{-14})$
5) $-\log(3 \times 10^{-3})$
6) $-\log(5 \times 10^{-7})$
7) $-\log(8 \times 10^{-7})$
8) $-\log(10 \times 10^{-11})$
9) $-\log(6.7 \times 10^{-4})$
10) $-\log(9 \times 10^{-2})$
11) Antilog 5
12) Antilog 8
13) Antilog 7.3
14) Antilog 9.1
15) Antilog 11.5

Solutions overleaf…

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Solutions

1) -log(0.001) = **-log(1x10^{-3}) = 3**

2) -log(1x10^{-4}) = **4**

3) -log(1x10^{-11}) = **11**

4) -log(1x10^{-14}) = **14**

5) -log(3x10^{-3}) = **2.5**

6) -log(5x10^{-7}) **= 6.3**

7) -log(8x10^{-7}) = **6.1**

8) -log(10x10^{-11}) = **-log(1 x 10^{-10}) = 10**

9) -log(6.7 x10^{-4}) **≈ between 3.1 and 3.3 (exactly 3.17)**

10) -log(9x10^{-2}) **≈ between 1.1 and 1.0 (exactly 1.05)**

11) Antilog 5 = **1x10^{-5}**

12) Antilog 8 = **1x10^{-8}**

13) Antilog 7.3 = **5x10^{-8}**

14) Antilog 9.1 **= 8x10^{-10}**

15) Antilog 11.5 = **3x10^{-12}**

Please provide feedback on this resource so I can keep improving it!
Feedback link - https://www.surveymonkey.co.uk/r/JY3ZQZF