



Logarithms for Humans

SELF CHECK 1:

Here's a frivolous quiz.

There is no need to answer any of the questions,
and if you do, the points you earn mean nothing!

(Feeling curious to give it a try anyway?)



SELF CHECK 1

Question 1 [20 points]

Which of these arithmetic problems would you prefer to solve with pencil and paper?
(Please choose the third and fourth options!)

- a) $45,980,878 + 98,758,463$
- b) $45,980,878 \times 98,758,463$
- c) Neither of them
- d) But if I were forced to do one, I'd choose the addition problem.

Question 2 [40 points]

Henry Briggs, a colleague of John Napier, helped create a table of logarithms aligned to the powers of ten: 1, 10, 100, ...

Which of the following summations would allow you to compute 2×6 using Briggsian logarithms?

(Let's pretend we don't already know the answer is 12!)

- a) $0.301 + 0.477$
- b) $0.301 + 1.079$
- c) $0.301 + 0.778$

| number | Briggsian logarithm |
|--------|---------------------|
| 1 | 0.000 |
| 2 | 0.301 |
| 3 | 0.477 |
| 4 | 0.602 |
| 5 | 0.699 |
| 6 | 0.778 |
| 7 | 0.845 |
| 8 | 0.903 |
| 9 | 0.954 |
| 10 | 1.000 |
| 11 | 1.041 |
| 12 | 1.079 |

- d) What are you even talking about? You can't use addition to solve a multiplication problem!



Question 3 [40 points]

What is the etymology of the word *logarithm*?

- a) It comes from the Latin words for "ratio" and "arithmetic values" as Scottish mathematician John Napier was working with ratios of arithmetic values.
- b) It originates from Latin words associated with snakes living under fallen trees: *logs* and *adders*.
- c) It is French for "an exceptionally polite giraffe."
- d) I don't know what "etymology" means and cannot guess its meaning from the context of this question.

Answers:

1. c) d) 2. c) 3. a) or maybe d)