Name: _____ Date: _____

How Many's a Million? Billion? Trillion?

By Kirk Fitch

Counting large numbers: If you were to count numbers at a rate of 1 per second, how long would it take you to count up to a million? How about a billion? And if you got really ambitious and tried counting to a trillion? Do you think you could do it?

Take a few minutes to think about this challenge. Do you foresee any problems or questions that might come up as you attempt this exercise? Write down two or three of the problems you might run into in the space below.

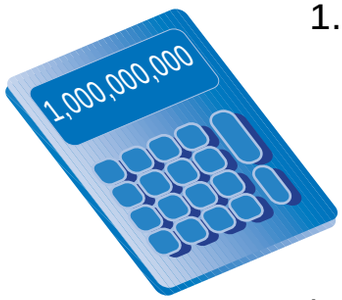
_____

_____

_____

_____

Calculating your answers: In the space below, calculate your answers to the counting questions. Assume that you are taking no breaks for things like eating or sleeping.



1. How long would it take to count to 1,000,000?

   1,000,000 / 60 = _____ minutes

   _____ / 60 = _____ hours

   _____ / 24 = _____ days _____hours

   It would take me _____
   to count to 1 million.

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2. How long would it take to count to 1,000,000,000?

_____ / _____ = _____ minutes
_____ / _____ = _____ hours
_____ / _____ = _____ days
_____ / _____ = _____years _____ days

It would take me _____ to count to 1 billion.

3. How long would it take to count to 1,000,000,000,000?

_____ / _____ = _____ minutes
_____ / _____ = _____ hours
_____ / _____ = _____ days
_____ / _____ = _____years _____ days

It would take me _____ to count to 1trillion.

Bonus question: If there were 1 quadrillion stars in a cluster of galaxies, how long would it take you to count them? Please show all your work below and clearly label your answer.

_____
_____
_____
_____
_____
_____
_____
_____