



Problem of the Week

Problem B

Bytes Rule!

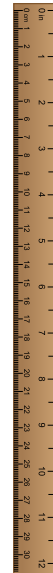
Measurements depend critically on the units used. Here are some sample measures of length, and of computer memory.

- a) When measuring length, the metric system uses different prefixes to go with the base unit, metres (m). Complete the table using the following metric prefixes:

centi (c), deca (da), deci (d), hecto (h), milli (m)

(Two rows of the chart are done for you.)

term	prefix	shortform	conversion from m
kilometre	kilo	km	$\times 1000$
			$\times 100$
			$\times 10$
metre		m	
			$\div 10$
			$\div 100$
			$\div 1000$



- b) Computer memory also uses metric prefixes, but on a larger scale. The base unit for memory is a byte. Fill in the table using the prefixes. mega (M), tera (T), giga (G).

term	prefix	shortform	conversion
			$\times 1\,000\,000\,000\,000$
			$\times 1\,000\,000\,000$
			$\times 1\,000\,000$
kilobyte	kilo	kB	$\times 1000$
byte		B	



- c) What will happen as computer memory continues to expand? Do some research and fill in the table for the future of amounts of memory.

term	prefix	shortform	conversion
			$\times 1\,000\,000\,000\,000\,000\,000\,000$
			$\times 1\,000\,000\,000\,000\,000\,000$
			$\times 1\,000\,000\,000\,000\,000$
byte		b	

