



The universal language

‘Mathematics is the only language shared by all human beings regardless of culture, religion, or gender. Pi is still 3.14159 regardless of what country you are in. Adding up the cost of a basket full of groceries involves the same math process regardless of whether the total is expressed in dollars, rubles, or yen. With this universal language, all of us, no matter what our unit of exchange, are likely to arrive at math results the same way.

‘Very few people, if any, are literate in all the world’s tongues – English, Chinese, Arabic, Bengali, and so on. But virtually all of us possess the ability to be “literate” in the shared language of math. This math literacy is called numeracy, and it is this shared language of numbers that connects us with people across continents and through time. It is what links ancient scholars and medieval merchants, astronauts and artists, peasants and presidents.

‘With this language we can explain the mysteries of the universe or the secrets of DNA. We can understand the forces of planetary motion, discover cures for catastrophic diseases, or calculate the distance from Boston to Bangkok. We can make chocolate chip cookies or save money for retirement. We can build computers and transfer information across the globe. Math is not just for calculus majors. It’s for all of us. And it’s not just about pondering imaginary numbers or calculating difficult equations. It’s about making better daily decisions and, hopefully, leading richer, fuller lives.’

Source: <http://www.learner.org/exhibits/dailymath/language.html>



The three areas of numeracy

Number – including calculations. This includes the concepts of number size and order, the so-called four rules – addition, subtraction, multiplication and division, fractions, decimals and percentages.

Handling data – that is interpreting and using graphs, charts and tables.

Measures, shape and space – this includes money, weight, temperature, capacity and time as well as distance and size.



What the experts say...

‘A man whose mind has gone astray should study mathematics.’

(Francis Bacon)

‘Medicine makes people ill, mathematics make them sad and theology makes them sinful.’

(Martin Luther)

‘In mathematics you don't understand things. You just get used to them.’

(Johann von Neumann)

‘There are three kinds of mathematicians: those who can count and those who cannot.’

(anon)

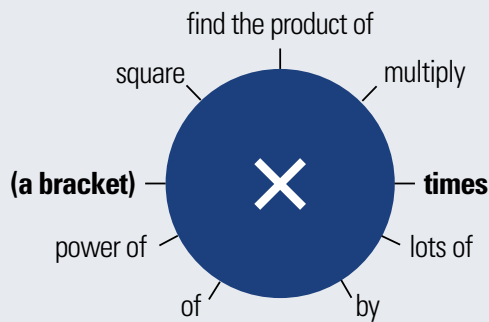
From Frank Wikstrom's Mathematical Quotes at:
<http://abel.math.umu.se/~frankw/mquot.html>



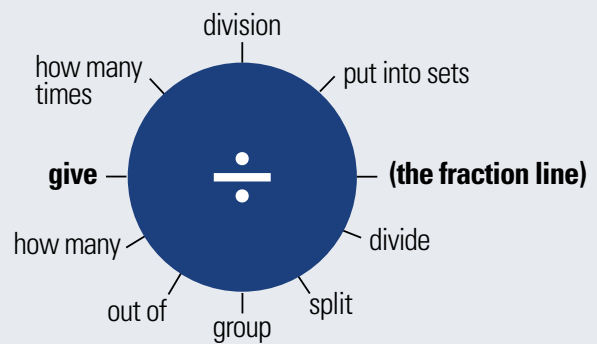
Language of numeracy

Language and symbols

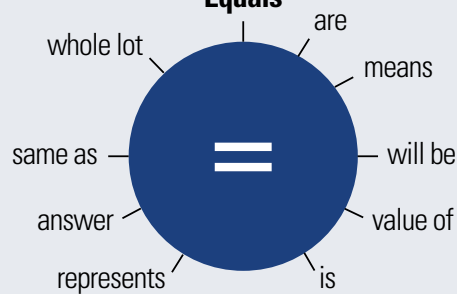
Multiplication



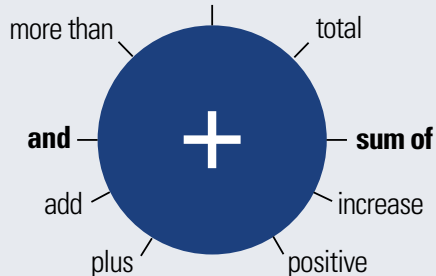
Division



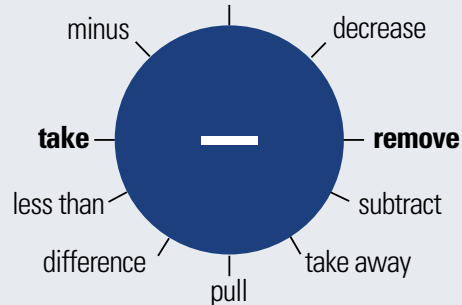
Equals



Addition



Subtraction



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