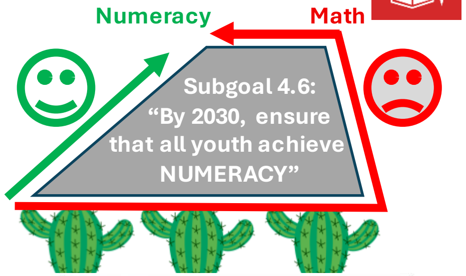
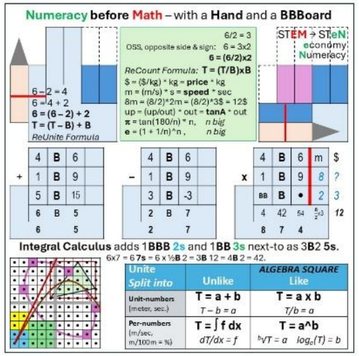
UN Sustainable Goal 4 QUALITY EDUCATION

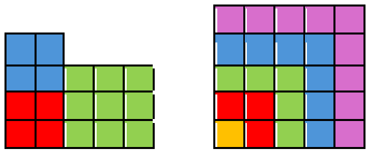
Num • Now • How?





BundleBundle Math on a BundleBundle Board

Existence before Essence: Count before Add



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4 **2s** plus 3 **3s** add next-to as 3B2 **5s** or as 3 2/5 **5s** or as 4B-3 **5s** (*Integral Calculus*)

5 = I I I I I = 1B3 2s	5 = I I I I Ix = 3B -1 2s
5 = I I I I I = 2B1 2s	5 = I I I I I = 1BB 0B 1 2s

9 presentations at

More about **BBM-Numeracy** Count and Add with units in Time and Space, **the CATS** method, on
- MrAlTarp YouTube videos, and on
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Numeracy as Text-free Math

Springing from my Hand & a BBBoard

01. Count fingers in space to meet **B**undles and **B**undle**B**undles: II II I (T = 2**B**1 = 3**B**-1 = 1**BB**0**B**1 **2s**) **B**unde-counting in tens, hundred and thousand become **B**undle**B**undle & **B**undle**B**undle**B**undle. *Place values are superseded.*

02. Count fingers in time to meet half-**B**undles, **H**, count existence instead of essence: 0**B**1, 0**B**2, 0**B**3, 0**B**4, 0**B**5 = 1**H**0, 1**H**1, 1**H**2, 1**H**3, 1**H**4, 1**H**5 = 1**B**0.

03. Pull-away and back fingers to meet 'subtract before adding', 6 = (6-2)+2, T=(T-**B**)+**B**, the 'split & reunite formula', solving equations by moving to opposite side with opposite sign. *u*+2 = 8, *u* = 8-2. *Functions and balance methods are superseded*

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05. Use the middle fingers 3×3 board to subtract and add (and multiply) 2digit numbers with units while accepting overloads and underloads. 46+19 = 4**B**6+1**B**9 = 5**B**15 = 6**B**5; 46-19 = 4**B**6-1**B**9 = 3**B**-3 = 2**B**7; 46*19 = 4**B**6*1**B**9 = 4**BB**(4*9+6*1)5**B**54 = 4**BB**47**B**4 = 874

06. Put the fingers together two by two to see the times-2 table till 10. Look inside the fingers to see the times-3 table till 15. Look twice at the four long fingers to see the times-4 table till 20. Look twice at all five fingers to see the times-5 table.

07. Use the 3×3board to multiplication tables with 6 = 1**B**-4 = 1**H**1; and 7 = 1**B**-3 =1**H**2, so
6*7 = 6*1**H**2 = 6**HB**12 = 3**B**12 = 4**B**2 = 42
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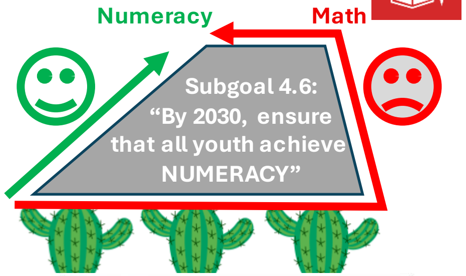

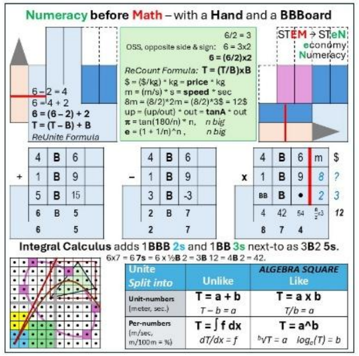

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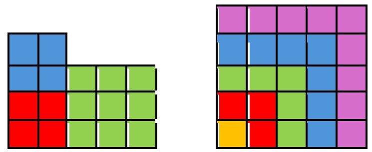

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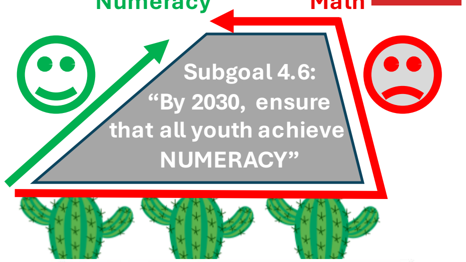

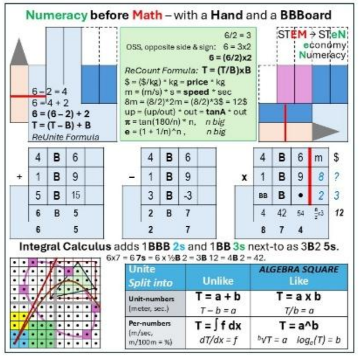

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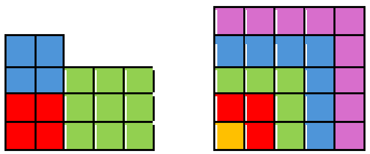

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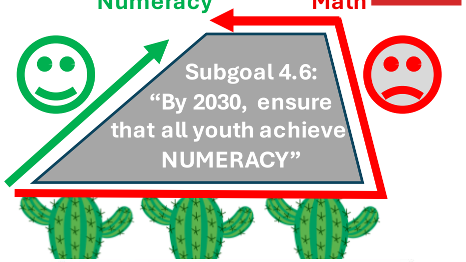

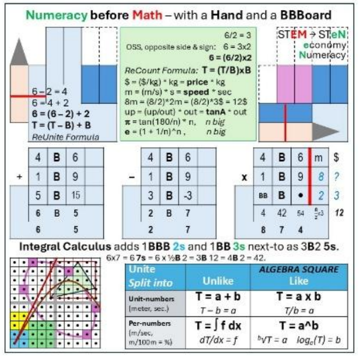

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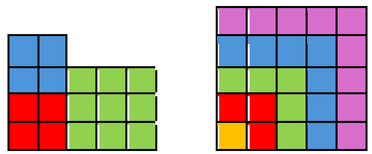

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