

PreSchool Mathematics

The MATHeCADEMY.net Channel

Count & Add



MANY

School

Count in tens

Add on-top

PreSchool

Count in icons less than ten

Add on-top & next-to

FirstOrder Counting

IIIIII → 5 etc.

I	II	III	IIII	IIIII	IIIIII	IIIIIII	IIIIIIII	IIIIIIIII
I	L	4	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9

Counting in 5s

1, 2, 3, 4, B, 1B1, 1B2

1, 2, 3, 4, 10, 11, 12

Counting 7 1s in 5s

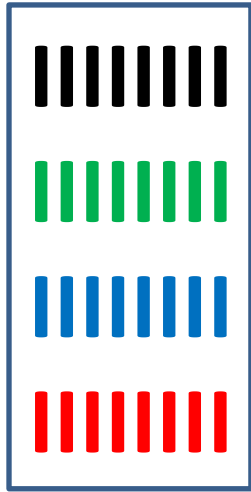
T = | | | | | | |

= ~~||||~~ | |

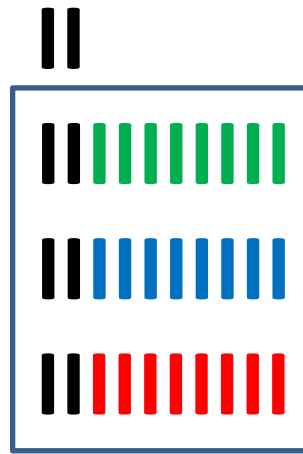
= |) | |)

= 1) 2) = 1.2 5s

ReCounting 4 8s in tens



=



4 8s

=

3.2 tens

=

32 ??

Counting 7 in 3s and 2s

$$\text{IIIIII} = \text{II} \text{II} \text{I} = \text{II})\text{I}) = 2)1) = 2.1 \text{ 3s}$$

$$\begin{aligned} \text{IIIIII} &= \text{II} \text{II} \text{II} \text{I} = \text{III})\text{I}) = 3)1) = 3.1 \text{ 2s} \\ &= \text{I})\text{I})\text{I}) = 1)1)1) = 11.1 \text{ 2s} \end{aligned}$$

Overloads

||| ||| ||| ||| | = ||| ||| ||| |||| = ||| ||| |||||

4.1 3s = 3.4 3s = 2.7 3s

IT in PreSchoolMath

Question: 5 3s = ? 7s

||| ||| ||| ||| ||| = ||||||| ||||||| | = 2.1 7s

Calculator

From 5 3s, take away 7s:

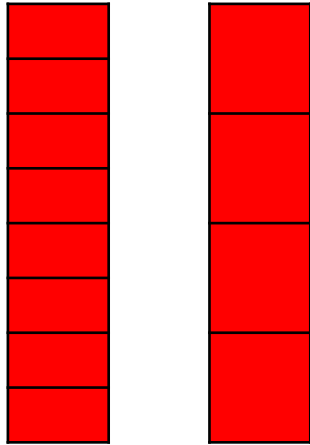
From 5 3s, take away 2 7s:

$5*3/7$ 2.?

$5*3 - 2*7$ 1

Prediction: 5 3s = 2.1 7s

Formulas in PreSchool

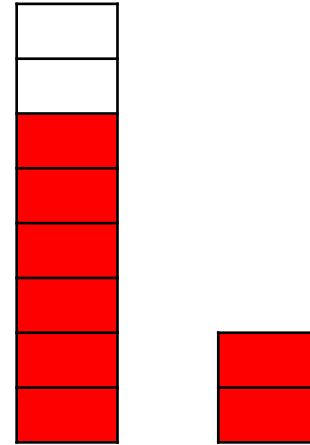


the
ReCount
formula

$$8 = (8/2)*2$$

$$T = (T/b)*b$$

From the Total T,
b can be taken away
T/b times



the
ReStack
Formula

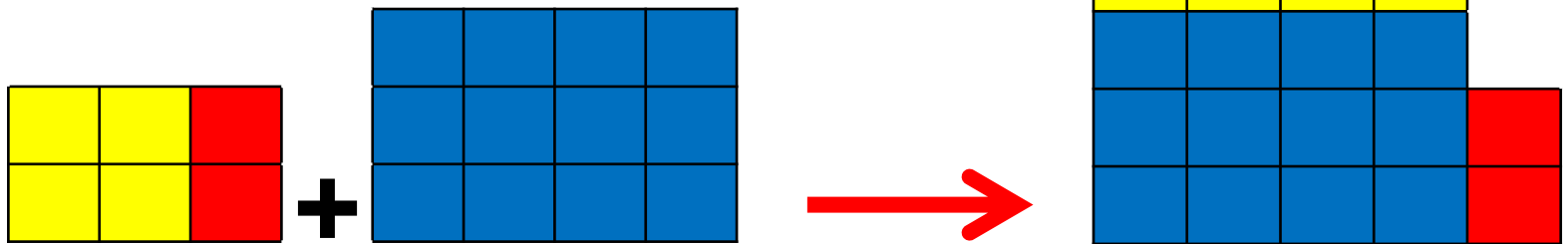
$$8 = (8-2) + 2$$

$$T = (T-b) + b$$

From the Total T,
b can be placed
next to T-b

Adding OnTop

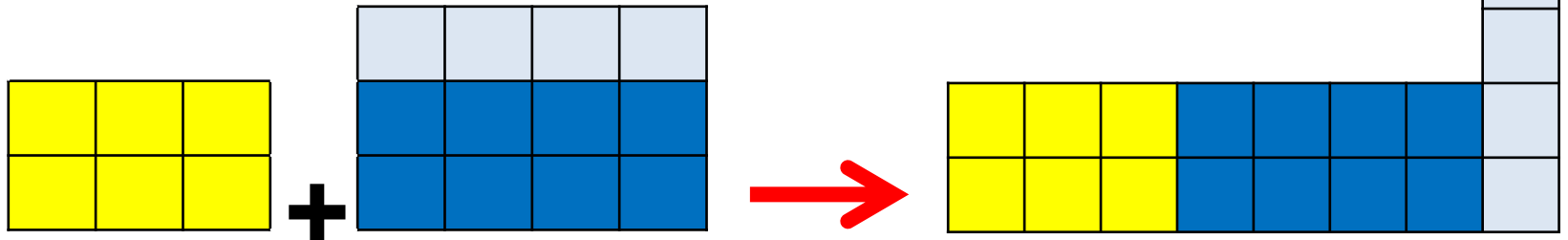
Q: $2 \text{ } 3\text{s} + 3 \text{ } 4\text{s} = ? \text{ } 4\text{s}$



A: $2 \text{ } 3\text{s} + 3 \text{ } 4\text{s} = 4.2 \text{ } 4\text{s}$

Adding NextTo

Q: 2 3s + 3 4s = ? 7s



A: 2 3s + 3 4s = 2.4 7s

Solving Equations I

$$? + 3 = 9$$

$$x + 3 = 9$$

$$= (9 - 3) + 3$$

$$x = ? = 9 - 3$$

$$x + 3 = 9$$

3

x

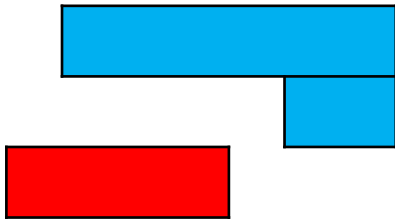
9 - 3



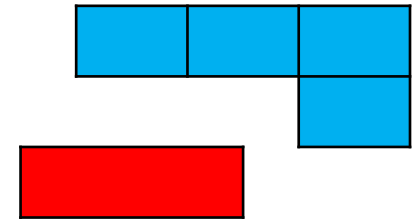
Solving Equations III



Q: $1 \text{ } 4s + ? \text{ } 2s = 2 \text{ } 6s$



first take away the $1 \text{ } 4s$

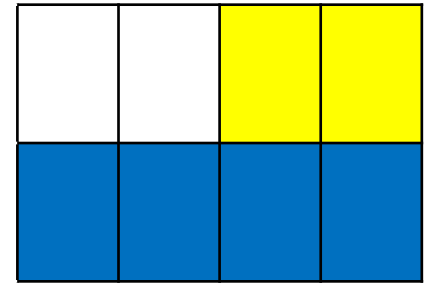
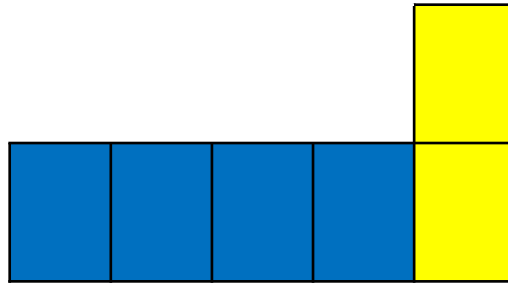
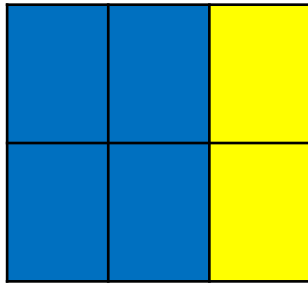


then count the rest in $2s$

A: $? = (2 \text{ } 6s - 1 \text{ } 4s) / 2 = 4$ *differentiation*

Fractions or Decimals

Q: 2 3s = ? 4s



A: 2 3s = 1.2 4s = 1 2/4 4s

Order of Operations

School: + - * /

PreSchool: / * - +

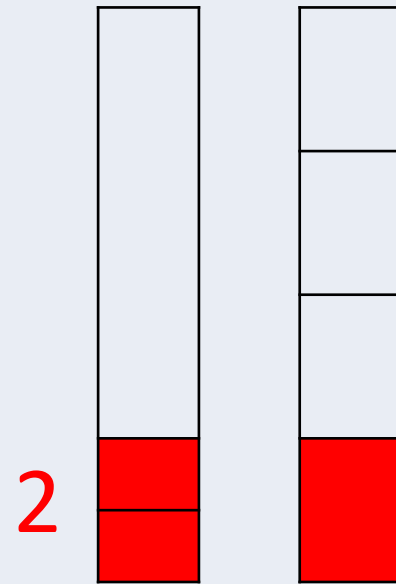
Solving Equations II

$$? * 2 = 8$$

$$x * 2 = 8$$
$$= (8/2) * 2$$

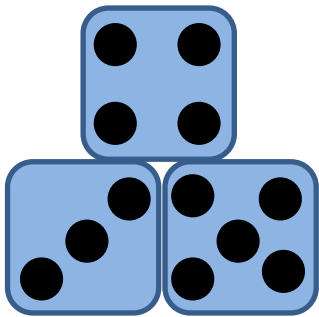
$$x = ? = 8/2$$

$$\underline{x} * 2 = 8 = \underline{(8/2)} * 2$$



After PreSchool

Dices or Mikados	Coded Numbers
Q1: 4 3s = ? 5s	T = 4 C _s + 3 S _s
Q2: 4 5s = ? 3s	If C = 3 and S = 5
Q3: 5 3s = ? 4s	Q1: T = ? C _s
etc. with Q4, Q5 & Q6	Q2: T = ? S _s



CCCCSSSS

MultiDigit Numbers?

$$T = 456$$

$$= 4 \text{ BBs} + 5 \text{ Bs} + 6 \text{ 1s}$$