Co-design sessions for the blocks game:

2 alternatives:

* Start by giving him the answer to an equation he needs to figure out. Lay out the exact blocks he needs to use to find out the answer. He will then start building the math equation with the correct math notation.

* Give him an answer and all the different blocks. There is only one right equation that gives that answer. He will have to ask questions on how the formula looks or which signs and numbers it uses.

Easy:

* 4+(2×3)= 10
* 53=125
* π+2≈3.14+2=5.14

Medium:

* 32+**√**49​=9+7=13

Hard:

* 2π+(3/9)​≈6.28+3≈9.28
* 700 ×3−(82)=700×3−64=2100−64=2036

What blocks do we want to use for the first prototype?

Grid ( lines)

Summation

root(diff numbers)

* (Plus) x4 (Medium)
* (Minus) x4(Medium)

X (Multiplication) x4(Medium)

transparent ones

Root signx3) (Big)

Lines for fractions x5

bigg X number x2 (Medium)

small x bumber x2

Big numbers x3 (0,1,2,3,4,5,6,7,8,9,) pi and e (Medium)

Small numbers x2 (0,1,2,3,4,5,6,7,8,9) pi and e (small)

()x4 , [ ] x2 Brackets (Medium)

= equal x3(Medium)

About equal x1(Medium)

< Bigger than. x2(Medium)

Summation sign x2 )(BIG)

Colour scheme:

Arithmetic operators (Irati)

Numbers: Pi (as a number) Thies

Equality, equivalence and Thies

Comparison Irati)

letter (integers)Irati

Linear and multilinear algebra: Summation sign(Thies)

Brakets: Thies