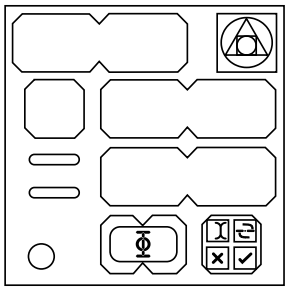
On the Subject of Mathemetallics



Basic arithmetic just got metal!

- A mathemetallics module displays an encoded binary operation that is written in base ρ, where $\rho^{n+1} = k\rho^n + \rho^{n-1}$ for some positive integer k given by the symbol at the top right of the module.
- Any number of the form $a\rho + b$, for integer values a and b, can be written in base ρ. A base ρ representation of a number uses only the digits 0 to k.
- A base ρ representation is displayed in positional index notation with the negative powers of ρ on the right half of the screen.
- The characteristic equation of ρ shown above gives rise to the identity; $k1_\rho = 100_\rho$, thus there are multiple ways to represent a number in base ρ.
- A base ρ representation is the *minimal form* if all occurrences of k are immediately followed by 0. There is only a single minimal form for each number written in base ρ.
- The minimal form of the result of the displayed operation must be entered into the module using the selector and buttons.

Symbol	ρ (Ratio)	k	
☉	Golden	1	
☾	Silver	2	
♃	Bronze	3	
♀	Copper	4	
♇	Nickel	5	
♄	Aluminium	6	
♂	Iron	7	
♃	Tin	8	
♄	Lead	9	
		0	
		Digit	Glyph