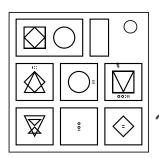
### On the Subject of Puzzword

I imagine finding the disarm code is a simple matter of just putting in the right letters. I mean, it tells you exactly what they are.

The module displays a set of symbols which represent constraints on a set of six values from 1-26. Disarm the module by determining the correct values that satisfy all of the constraints, converting them to letters using AlZ26, and entering the letters.



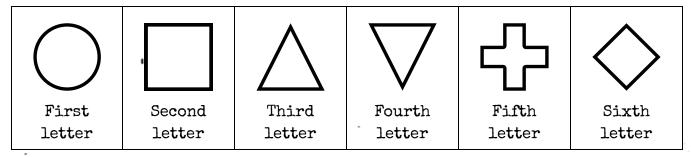
Sometimes there are two pages of constraints; tap the screen at the top to toggle between them.

#### Input

- The bottom 6 displays can be used to submit the 6-letter word. Tap any one of these displays to start entering letters. Keep tapping to cycle to the desired letter. Then tap another screen to start entering another letter there. The letters can be entered in any order.
- After 5 seconds of no input, the module will disarm if the six screens are set to the correct letters, or register a strike otherwise.
- An ongoing submission may be canceled by tapping the top screen before the 5 second timeout elapses.

#### Symbols '.

The following symbols are used to represent the six letter positions, in this order. These will be referred to as variables.



The following four symbols represent base-4 digits. Numbers written in this way will be referred to as <u>constants</u>.

: = 0
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# <u>Constraints</u>

	/		/
10	(constant is horizontal or a single digit)  This value is not present.	ō	(constant is vertical and ≥ 2 the digits)  Two of the variables add up to this value.
oi ×:i	(top constant is smaller)  There is a variable whose value is between the specified bounds (exclusive).	<u>x</u> o	(right constant is smaller) One of these values is present, but not both.
, x:1	(top constant is larger) There is a value outside the specified bounds (exclusive).	x:1	(right constant is larger)  Both of these values are present, or neither.
	No other variable is less than this one.		Another variable is less than this one.
	No other variable is greater than this one.		Another variable is greater than this one.
	This variable is a prime number.		This variable is not a prime number.
	This variable is a square number.		This variable is not a square number.

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# <u>Constraints (cont.)</u>

10	This variable's value is greater than this constant.	ō	A variable further right than this one has this value.
OI	This variable's value is less than this constant. (constant is upside-down)	<u>∘</u>	A variable further left than this one has this value. (constant is written from bottom to top)
10	(constant is horizontal or a single digit)  This variable's value is divisible by this constant.	ō	(constant is vertical and ≥ 2 digits)  This variable's value is not divisible by this constant.
	The constant is the sum of these variables.	ō	The constant is the absolute difference of these variables.
OI OI	The constant is the product of these variables.  (constant is upside-down)	<u>°</u> €	The constant is the variable with the greater value divided by the other.  (constant is written from bottom to top)
lo	(constant is horizontal or a single digit)  The constant is numerically between the variables' values (exclusive).	<u>5</u>	<pre>(constant is vertical and ≥ 2 digits) The difference between the variables is a multiple of the constant.</pre>

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## <u>Constraints (cont.)</u>

<u>ю</u>	The base-10 concatenation of the larger variable followed by the smaller one is divisible by the constant.	٥	The larger variable modulo the smaller one equals the constant.
<u>Δ</u>	The base-10 concatenation of the larger variable followed by the smaller one is not divisible by the constant.  (constant is upside-down)	<u>o</u> △	The larger variable modulo the smaller one does not equal the constant.  (constant is written from bottom to top)
	The two variables have different values.	Δ	The smaller variable's value is less than the larger one.

## <u>Large-screen constraints</u>

The variables on the left, when added, equal the variable on the right.
The variables on the right, when multiplied, equal the variable on the left.
The larger variable on the left modulo the smaller one equals the variable on the right.
The base-10 concatenation of the larger variable on the right followed by the smaller one is divisible by the variable on the left.