

On the Subject of Algebra

"Why do we need to study algebra? We'll never use it in real life..." Anybody else remember saying that?

- The module consists of a number pad and two screens.
- In three stages, the module displays an equation involving the variables a , b and c , respectively.
- Solve the equation for a , b or c and enter the answer to progress to the next stage.
- In each equation, the variables x , y and z may appear. Calculate their values using the columns of the following table:

| | | | | |
|------------|---|--------|-----|-----------------------|
| <EQUATION> | | | | <input type="radio"/> |
| [REDACTED] | | | | <input type="radio"/> |
| 1 | 2 | 3 | +/- | <input type="radio"/> |
| 4 | 5 | 6 | . | <input type="radio"/> |
| 7 | 8 | 9 | 0 | <input type="radio"/> |
| Clear | | Submit | | <input type="radio"/> |

| $x = n$ | | $y = i - p$ | | $z = m + t \times d$ | |
|--|----|---|----|--|----|
| n = sum of digits in the serial number | | i = number of indicators p = number of ports | | m = number of modules t = number of AA batteries d = number of D batteries | |
| 3 or more battery holders present? | +2 | 2 or fewer battery holders present? | -2 | No battery holders present? | +3 |
| RJ-45 port present? | -1 | Serial port present? | +3 | Parallel port present? | -6 |
| Lit BOB indicator present? | +4 | Unlit FRQ indicator present? | -5 | Lit MSA indicator present? | +2 |
| Serial number contains a vowel? | -3 | Sum of the serial number digits is prime? | +4 | Sum of the serial number digits is divisible by 3? | +1 |