# On the Subject of The Cruel Code

Why do we now have three codes? Which should I type in? WHAT IS GOING ON? AAAAAAAAAAaaaaaaaaaaaaaaaaaaaaaa

- To defuse this module, you need to input the correct code. The code can have at most four digits.
- To do that, obtain three numbers first (part 1 below), then determine the code (part 2).
- Type the answer using the number keys and press "S" to submit it.

# 1337 1 2 3 4 5 6 7 8 9 0 S 0

# 1. Obtaining the numbers.

- Check the display. You will see the 1st number, nl. Press "Q" once.
- You will see the 2nd number, n2. Press "Q" again.
- You will see the 3rd number, n3.
- Don't press "Q" for a third time before you submit. Otherwise, the module and numbers will reset with a strike.

## 2. Determining the code.

- If  $|\sqrt{n1}| = 35$ , the code is the result of dr(n1+n2+n3).
- Otherwise, if dr(n1) = dr(n3), the code is result of  $|\sqrt{n3}|$ .
- Otherwise, if  $|\sqrt{n2}| = |\sqrt{n3}|$ , the code is result of  $|\sqrt{(n1+n2)}|$ .
- Otherwise, if Cruel Piano Keys or Mastermind Cruel is on the bomb, the code is the total whole seconds left on the bomb timer when you submit.
- Otherwise, if the bomb was started on a Monday and a lit BOB indicator is on the bomb, the code is 4321.
- Otherwise, if exactly 12 solvable modules are on the bomb, the code is 19.
- Otherwise, the code is the greater value between 1 and  $|(|\sqrt{n2}|/|\sqrt{n1}|)|$ .
- If the answer is 0 or 1, the actual answer is  $(|\sqrt{n2}|+|\sqrt{n3}|+n1)\%9999$ .

### Formulae

- dr(x) takes the digital root of a non-negative integer x.
- $\sqrt{y}$  takes the principal square root of a non-negative real number y.
- [z] takes the greatest integer less than or equal to a real number z.