

```
To TrioOfWho
```

```
ca
cro 21
ask turtles
[
  pd fd 9 pu fd 1
  set pen-size 2
  pd
  ifelse (remainder who 3 = 0)
  [
    set color white
    set shape "airplane"
    repeat 4 [ fd 1.5 rt 90 ]
  ]
  [
    ifelse (remainder who 3 = 1)
    [
      set color yellow
      set shape "bug"
      repeat 3 [ fd 2 rt 120 ]
    ]
    [
      set color cyan
      set shape "bee"
      repeat 5 [ fd 1 rt 72 ]
    ]
  ]
]
pu
fd 5
set size 2
]
END
```

When you divide by 3, the remainder is either 0 or 1 or 2.

We say a number is divisible by 3, leaving no remainder, i.e. the remainder is 0. Otherwise, the remainder has to be either 1 or 2.

When you divide by 2, the remainder is either 0 or 1.

If a number is not divisible by 2, the remainder is known, the remainder has to be 1. So we can name the numbers that are divisible by 2. The name is EVEN, or an EVEN number. Not divisible by 2 and left a remainder. Name those the ODD numbers.

Note the indentation to show the LOGIC of the NetLOGO code. Note how the opening bracket [lines up with the corresponding closing bracket] for the ASK TURTLES or for the IFELSE clauses.

Note the indentation inside of each [and] pair. It is easy to see the logic. It is much harder to make errors when writing or changing the code.

PLEASE INDENT and use HORIZONTAL WHITE SPACE!

Also, note there are some BLANK LINES or VERTICAL WHITE SPACE, breaking the code up into different related chunks of code. White space is good, both horizontal and vertical!

Thursday, January 29, 2015

CS 1025 01 8 TTh

Separate WHAT from HOW.

Dr. Peter Venkman represents the WHAT focus. Understand WHAT the problem is first.

Dr Raymond Stantz represents the HOW focus or aspect of problem solving. Develop a PLAN for HOW to solve the problem second, only AFTER you have a great understanding of WHAT the problem is, or WHAT you are trying to solve or do.

Very vigorously separate your many different concerns. The two main concerns are always WHAT and HOW.

