Most computer languages have the ability to generate random numbers. This is important within computer games, computer models and artificial intelligence.

The syntax for random numbers is:

## RANDOM_INT(fromInteger, tolnteger)

Some languages will only find a real number between 0 and 1, in which case the real number will need to be multiplied and then converted to an integer.

The following example shows how the code will randomly produce any of the values of 3,4 or 5 .


## Rolling a dice in a game



## Tossing a coin in a game

|  |  |
| :--- | :--- |
| coinToss $\leftarrow$ RANDOM_INT $(0,1)$ | Either Heads or Tails is output <br> IF coinToss $=0$ THEN |
|  |  |
|  |  |

ELSE
OUTPUT 'Tails'
ENDIF

## Deciding which direction to go for a robot

```
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direction \leftarrow RANDOM_INT (1,4)
IF direction = 1 THEN
```

    OUTPUT 'North'
    ELSE IF direction $=2$ THEN
OUTPUT 'East'
ELSE IF direction $=3$ THEN
OUTPUT 'South'
ELSE
OUTPUT 'West'
ENDIF

