

AQA Computer Science GCSE

3.2.9 Random Number Generation

Flashcards

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What is random number generation?



What is random number generation?

Creating a number that is selected unpredictably, usually within a specified range.



Why is random number generation used in programming?



Why is random number generation used in programming?

To add unpredictability in games, simulations, testing, or randomised decisions.



What is the pseudocode
command to generate a
random integer between 1
and 10?



What is the pseudocode command to generate a random integer between 1 and 10?

randomNum \leftarrow RANDOM_INT(1, 10)



How do you generate a random number in Python?



How do you generate a random number in Python?

```
python

import random
randomNum = random.randint(1, 10)
```



What type of value does
`RANDOM_INT()` return?



What type of value does `RANDOM_INT()` return?

A random integer within the given range (inclusive).



Should you store the random value in a variable?



Should you store the random value in a variable?

Yes, especially if you plan to use it more than once in the program.



Give an example use case of random numbers in a game.



Give an example use case of random numbers in a game.

Rolling a die, picking a random enemy move, or deciding if an attack hits.



Do you need to understand
how random numbers are
generated internally?



Do you need to understand how random numbers are generated internally?

No, knowledge of pseudo-random number algorithms is not required.



Can random numbers be
used in loops or conditions?



Can random numbers be used in loops or conditions?

Yes, to create dynamic and varied behaviours in program logic.



What is a common mistake
when using random
numbers?



What is a common mistake when using random numbers?

Forgetting to set the correct range or reusing the function without storing its result when consistency is needed.

