Difference between parameter and argument [duplicate]

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⭐

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Is there a difference between a "parameter" and an "argument", or are they simply synonyms?

language-agnostic   parameters   arguments   terminology

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marked as duplicate by nawfal, Barmar, Chains, jman, Bartek Banachewicz Feb 23 '13 at 1:20

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3   This seemed to me like a legit non-CW question. – Chris Farmer Jul 4 '10 at 21:42

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4 Answers

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✔

Argument is often used in the sense of "actual argument" vs. "formal parameter".

The formal parameter is what's given in the function declaration/definition/prototype, the actual argument is what's passed when calling the function, an instance of a formal parameter, if you will.

That being said, they're often used interchangably, or depending on language/community, and I've also heard "actual parameter" &c.

So here, x and y would be formal parameters:

```
int foo(int x, int y) {
    ...
}
```

Whereas here, in the function call, 5 and z are the actual arguments:

```
foo(5, z);
```

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danlei

4   Speaking of terminology, what is the "&c" you used? Does that mean "and vice versa" or something like that? – Jake Petroules Jul 22 '10 at 5:15

39   "&" is a ligature of "e" and "t", so it means "et", which is latin for "and". The "c" stands for "cetera", which means "(the) other(s)" (Nom. pl. n.). So you can substitute it with something like "and (the) other things", or "and so on". – danlei Jul 22 '10 at 11:26 ✎

10   @JakePetroules in other words it is short for "et cetera" en.wikipedia.org/wiki/Etcetera but I would say that (anecdotally) it is more commonly abbreviated etc. – Caltor Oct 3 '13 at 10:17

40   I'd like to see the &ymology of that usage. – JoeCool Jan 29 '14 at 15:16

2   @donquixote I would say that "parameter values" and "arguments" are not synonyms. For example you may make the following call foo(1, 2, 3) where (in C# for example) the signature of the called method is foo(a, params int[] b). Here the arguments are 1, 2, 3 and the parameter values are 1 and {2, 3}. – fractor Dec 24 '16 at 9:26

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Generally, the parameters are what are used inside the function and the arguments are the values passed when the function is called. (Unless you take the opposite view — Wikipedia mentions alternative conventions when discussing parameters and arguments).

```
double sqrt(double x)
{
    ...
    return x;
}

void other(void)
{
    double two = sqrt(2.0);
}
```

Under my thesis, x is the parameter to `sqrt()` and 2.0 is the argument.

The terms are often used at least somewhat interchangeably.

share improve this answer   edited Jan 31 at 21:09

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5

They are often used interchangeably in text, but in most standards the distinction is that an argument is an expression passed to a function, where a parameter is a reference declared in a function declaration.

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Arguments and parameters are different in that parameters are used to different values in the program and The arguments are passed the same value in the program so they are used in c++. But no difference in c. It is the same for arguments and parameters in c.

share improve this answer   edited Nov 21 '11 at 1:36

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