Easy As π

In full splendor, the mathematical constant π is given by

$$\pi = 3.1415926535897932384...$$

But we don't need that much accuracy, so engineers commonly use

$$\pi = 3.1416$$

and secretly feel they are cheating by not using more digits. Yet the error is only 2.5 parts per million. I don't care what they are designing, that's accurate enough. Any error introduced by this approximation will by no means be the largest error in their system.

$$\pi = 3.14$$

This is a simpler approximation with an error of only 5 parts out of 10,000, or 0.05%, so don't avoid it for having only three digits.

$$\pi = \frac{22}{7}$$

This is an even closer approximation with an error of only 4 parts out of 10,000, or 0.04%. That's good enough for your purposes whatever your purposes are.

We have become so used to calculators providing large numbers of digits that, like engineers, we feel we are cheating if we don't use them. And having absolutely no digits of π certainly feels like cheating, especially when the alternative is this fraction taught in school before the days of easy computation.

But there is a simpler approximation you can use.

$$\pi = 3$$

With an error of less than 5%, isn't that good enough for everyday purposes?[1] And where it is not good enough, just use 22/7 and be done with it. It's easy and amazingly accurate.

There's a good reason 22/7 was taught to our ancestors. Only mathematicians like me should ever care about more accuracy and that for abstruse reasons having nothing to do with measurement.

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[1] The widely known story about a state legislature passing a law setting π=3 is false. In 1897, the Indiana lower house passed a bill that would have given Indiana's imprimatur to fallacious mathematics, but the bill made no mention of π. Nevertheless, that bill is the ultimate source of this urban legend, which is perhaps justified for any legislation that decrees mathematics.