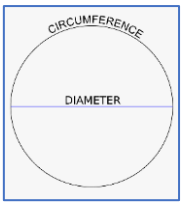
BryceHedstrom.Com

π *The* **Pi** *Day Challenge in Latin*

What is* Pi?** *(pronounced like the English word "pie").* Pi *is one of the most important numbers in mathematics.* Pi *is an infinite decimal—an irrational number.* Pi *appears over and over in nature, in math, and in human devices. It is a mysterious and elegant representation of a profound calculation.* Pi *is useful for all kinds of calculations involving the area of circles, the volume and surface area of spheres, and in figuring out the rotations of circular objects such as wheels. Without* Pi, *we would have a much harder time predicting the weather, tracking cargo ships, or even using digital maps. Humans have known about* Pi *for 4,000 years. The ancient Egyptians knew about it, and* Pi *is alluded to in the Bible in* ***1 Kings 7:23*, and* ***2 Chronicles 4:2****, with the dimensions of the "molten sea" (a large, circular basin) in Solomon's temple.*

The symbol for Pi *is* ϖ*, a Greek letter.*

How is* Pi *calculated? *Draw a circle, then draw a line straight across the circle (the diameter). If the line equals 1, then all the way around the circle (the circumference) is equal to 3.14159... , the number known as* Pi. Pi *always starts with 3. It is followed by a decimal point and an endless number of digits in a certain order that never repeats. 105 trillion digits of* Pi *have been calculated so far using a super computer.*



How many digits of* Pi *can you memorize in Latin?

Is this practical? Helpful for Latin vocabulary growth? Useful for fluency in any way? No, not really. *But...* ***1)*** *it is a fun challenge, and* ***2)*** *if you're not sure of the numbers 0-9 in Latin yet, memorizing several digits of* Pi *can help.* ***3)*** *It is impressive when you can memorize several digits of this well-known number.* ***4)*** *It's good memory practice—and your memory is like a muscle—you've got to use it to get stronger, and* ***5)*** *It can give you confidence knowing that you can memorize something difficult. Those have got to be worth something!*

The world record for memorizing Pi *is 70,000 digits, memorized by Rajveer Meena (age 21) from India.*

Nota Bene:

0 — *European mathematicians in the Middle Ages, created the word* zephirum *from the Arabic word* ṣifr, *meaning "empty" or "zero". You can use* zephirum *or* nihil *(nothing) for "zero" on your recitation of* Pi.

1 — Unus, Una, *or* Unum? *Since numbers in an abstract mathematical sense take the neuter form, we should use* "unum" *instead of* "unus."

2 — Duo *or* Duae? Duo *is the neuter form and doesn't change, so use* duo.

3 — *In this case, the number* Pi *would typically start off with* tria *instead of* tres *because* tres *is both the masculine and the feminine form of "three" while* tria *is the neuter (no gender) form. Since we are referring to a number in an abstract or mathematical sense, the neuter form* tria *would be considered correct.*

10:	3	.	1	4	1	5	9	2	6	5	3
	Tria	punctum	unum	quattuor	unum	quinque	novem	duo	sex	quinque	tria

20:	5 8 9 7 9 3 2 3 8 4	*30:*	6 2 6 4 3 3 8 3 2 7
40:	9 5 0 2 8 8 4 1 9 7	*50:*	1 6 9 3 9 9 3 7 5 1
60:	0 5 8 2 0 9 7 4 9 4	*70:*	4 5 9 2 3 0 7 8 1 6
80:	4 0 6 2 8 6 2 0 8 9	*90:*	9 8 6 2 8 0 3 4 8 2
100:	5 3 4 2 1 1 7 0 6 7		

0 = nihil, 1 = unum, 2 = duo, 3 = tria, 4 = quattuor, 5 = quinque, 6 = sex, 7 = septem, 8 = octo, 9 novem
(nee hill) (oo num) (quah too or) (queen quay) (no wem)

BryceHedstrom.Com

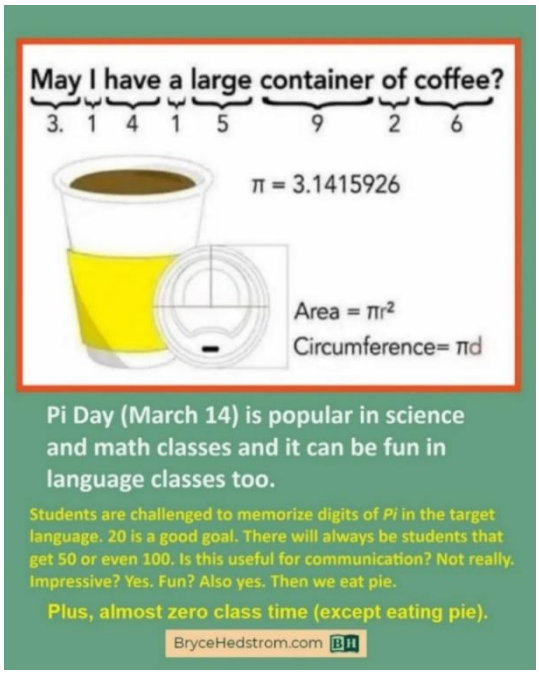
How is it possible to memorize so many random numbers? Students that have memorized 50-100 digits of Pi *say that "chunking" helps:* ***memorize chunks of numbers at a time****—anywhere between 3 and 7 numbers, or a whole row of 10 digits. This works because your short term memory can hold 3 to 7 items and with practice, up to 10. Some students say that focusing on 10 at time works best. Focus on that set until it begins to creep into your long term memory and then move on.*

Look for markers *to help you remember where you are in the sequence helps too:* ***look for repeated numbers*** *to help you get your bearings and trigger the next set. For example, in the 30 digit set there are two 3's in a row. In the 40 digit set there are two 8's in a row. In the 50 digit set there are two 9's in a row.*

There may also be other memorable ***patterns*** *or number* ***combinations*** *that are meaningful to you (like birthdays and addresses) that can help you remember.*

Chants *and* ***sing-song patterns*** *can help too.*

For more on memory techniques like this to boost your memory see the book ***Moonwalking with Einstein****: The Art and Science of Remembering Everything, by Joshua Foer. I highly recommend it.*



Teachers and Parents: Think about coordinating Pi Day with World Language, Science and Math classes!

Here are some websites about Pi Day activities:

https://www.edutopia.org/article/pi-day-celebrations-every-subject

https://www.jpl.nasa.gov/edu/news/2016/3/16/how-many-decimals-of-pi-do-we-really-need

https://www.weareteachers.com/pi-day-activities/

Another Pi explanation:

https://www.instagram.com/reel/DHL2iMZiD6A/?igsh=MWowOWt3cG05Zzljaw%3D%3D