

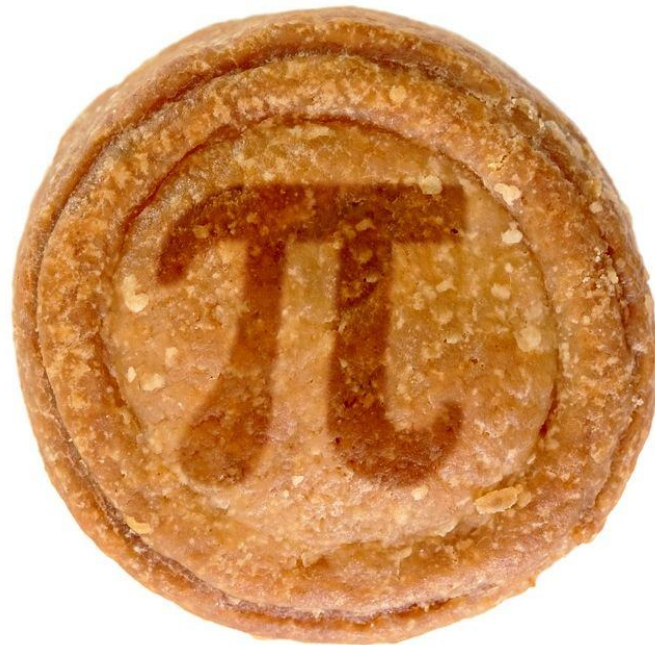
COMPUTER USERS OF ERIE

CUE Newsletter – March 2023 (Volume 40 Number 3)



March CUE Meeting

The next general meeting is on Thursday March 16th at 7:00 PM, by a Zoom link in your email, with a demo by Bob Gotischa about Cybersecurity from A to Z. Check the CUE website (www.cuerie.com), for more information.



Visit the CUE
Website at:

www.cuerie.com



Member of

An International
Association of Technology
& Computer User Groups

CUE Calendar



Calendar events are subject to change. SIG stands for Special Interest Group.
(look for notices outside of the newsletter for delays or special news on meetings)

CUE Membership Meetings (typically 3rd Thursday of each month)

Thursday March 16th at 7 PM

Thursday April 20th at 5:30 PM (in-person meeting at Wayside Presbyterian Church)

Chromebook SIG Meetings

No current local meetings but weekly national meetings at techforsenior.com

Chromebook tips from APCUG at apcug2.org/chromebook-tips-and-tricks

Digital Photo SIG Meetings

Thanks to Lou Cioccio for moderating this group in the past!

Genealogy SIG Meetings (typically 1st Tuesday of each month)

Tuesday March 7th at 7 PM

Tuesday April 4th at 7 PM

MAC SIG Meetings

Thanks to Lou Cioccio for moderating this group in the past!

Smartphone & Tablet SIG Meetings (typically 4th Monday of each month) (RSVP John Fair)

Monday March 27th at 7 PM

Monday April 24th at 7 PM

Windows / Beginner's User Group (BUG) Meetings

Thanks to Lou Cioccio for moderating this group in the past!

CUE Picnic

Sometime in September

CUE Christmas / Holiday Party

Sometime in December

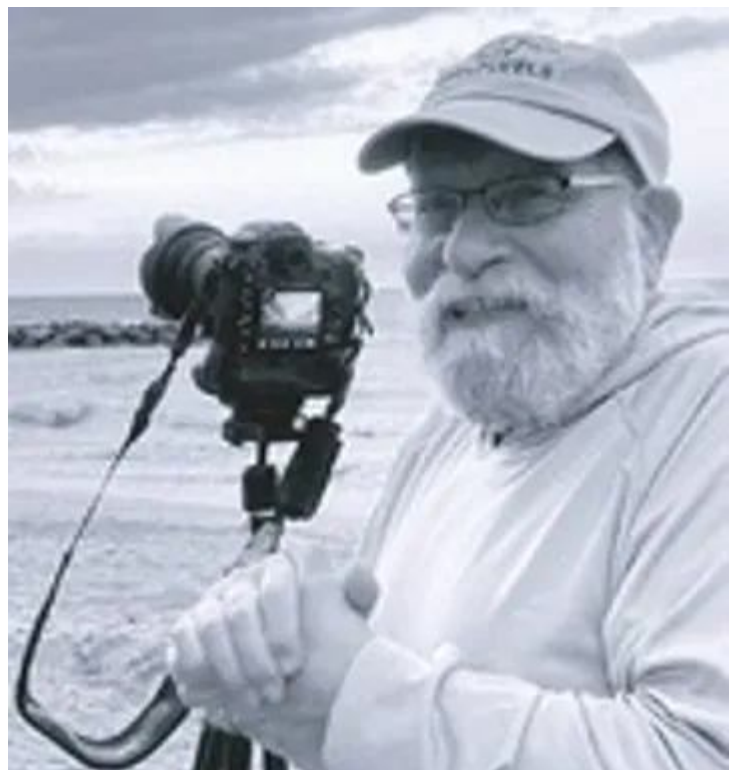
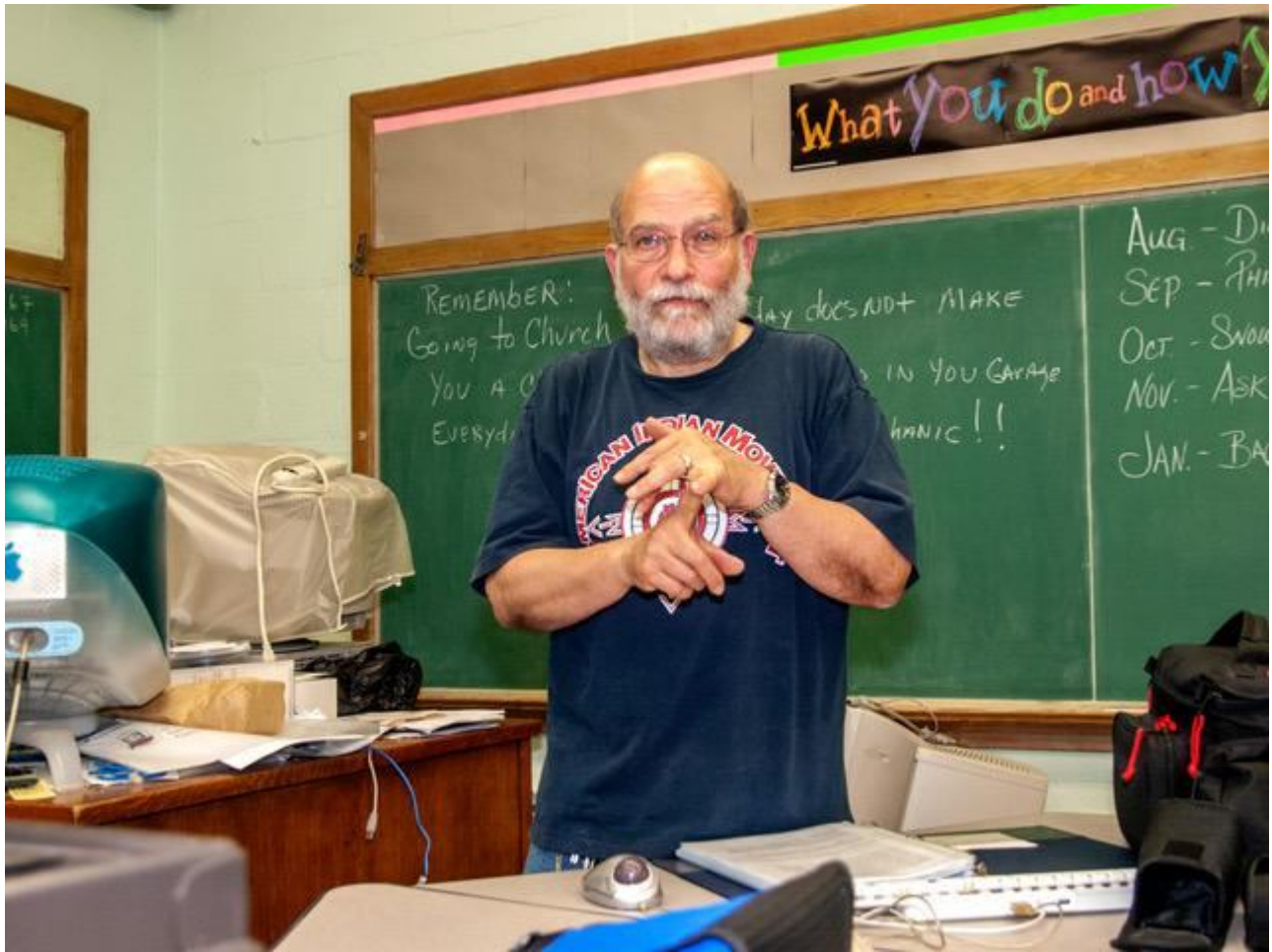
Cybersecurity

The March General Meeting program is “Cybersecurity from A to Z – 2023” presented by Bob Gotischa, member of the APCUG Speakers Bureau. Cyber security focuses on protecting computer systems from unauthorized access or being otherwise damaged or made inaccessible. Bob has been an enthusiastic IT security expert most notably for Avast and a major contributor to the Avast online forum since 2004. Bob is a great speaker who has presented programs to CUE several times in previous years and always has the latest information on Cybersecurity. You can also catch Bob at www.techforsenior.com where he joins Ron Brown, Hewie Poplock, Ray Baxter and Bill James both online and in YouTube videos.

That will be at 7 PM on Thursday March 16th!



Remembering Lou



Remembering Lou Continued

Lou Cioccio lived a very full life (3/26/46 to 2/13/23). There is not enough time or words to describe even the highlights of his life. Above all, Lou was friendly and easy to get along with. He shared so much about his passion for computers to CUE for years.

He was an original member of CUE from the early 1980's. He served as President and at other officer positions. He headed meetings for special interest groups for Beginner Users, Digital Photo, Macintosh computers, and Windows computers.

Outside of CUE, he served the U.S. Army at the Vietnam War. He worked at General Electric Co. for 40 years and traveled to work by bicycle for about 20 of those years. He was a Scout Master leader for the Boy Scouts. He provided IT services at the Holy Rosary Church. He taught computer science at the parish school.

Lou was enthusiastic about photography and owned a photography business, specializing in weddings. He taught photography with Photoshop classes. He was also involved with cycling, Genealogical research, leather crafting, and woodworking.

After Lou's passing, CUE members described Lou with the following quotes: "Lou was a great person", "We were blessed to know Lou, he will be missed", "He taught many folks and always shared his knowledge", "Lou is probably very busy now in heaven, testing out a new version of MAC OS or Windows", "What a life he lived", "He lived a life of love of family, volunteering, teaching and helping others", "The love of photography that he shared

brought many beautiful scenes that he emailed to us", "Heaven has gained a great one and we lost a good friend and mentor", "Celebrate a life well lived", "Lou touched many lives", "A testament to a gracious teacher, leader, photographer, and friend", "He had so much knowledge but the group recognized him, even more so, as a laid back friendly person", "I really enjoyed the Mac group he had on Saturday mornings, he helped me buy my computer and upgrades", "I sought help from Lou to photograph a wedding and he calmed me down and gave great suggestions", "I will be thinking of the good times we've had in the company of Lou", "He will be missed by all", "Perhaps his willingness to help, teach, and share was his greatest gift, his 'ministry' as he called it", "His legacy will live on in us if we remember to be kind and to share with others the gifts that we ourselves have", "I loved his smile when he had the answer to a question", "He was patient and kind and truly enriched our lives", "Lou really was a terrific person, always upbeat and eager to teach", "I was to his house many times and he was always in a good mood and his wife Kathy was always nice", "I first met Lou when Bill Stewart was selling Apple computers in Erie, he was a 'go to' guy for computer advice and a high value individual", "His good nature overwhelmed me as he pulled me up with his expertise saying something like 'I'll get you through this'", "Offering to pay Lou for his help, Lou said 'No, I don't want anything for it, this is my ministry'", "I've decided to dedicate one of my tunes to Lou's memory".

Lou, obviously, had a profound effect on many of us!

Bending Circles

By Don Grim at Computer Users of Erie

Happy Pi Day on March 14th! The year is already exactly one fifth over ($73 / 365$) so what better time than to celebrate π and math! I won't plead the Fifth! I will bring up some things like a super hero, paperball, a baseball curve, an ellipse, a case where math has failed us, a mathematician's apology, computer rescue, and a pi-based football!

The main topic is about Bending Circles! Here is my re-write of the words that were recited before each episode of the "Adventures of Superman" television show from the 1950's, which celebrates a Pi Man hero and mentions the bending of circles twice!



"Faster with a computer program! More powerful than just arithmetic! Able to leap tall dimensions in a single bound! Look, up in the graph! It's a function on a plane, designed by Pi Man! Yes, it's Pi Man, strange visitor from another realm, who came to Earth with powers and abilities far beyond those of normal men. Pi Man, who can change the course of mighty numbers, bend circles with his bare hands, and who, disguised as Arc Bent, mild-mannered reporter for a great mathematical newspaper, fights a never-ending battle for truth, justice, and the Mathematical Way!"

You can find the theme music from the television show at the following link:

www.youtube.com/watch?v=p0swAKS-5qA

I could tell you more about Pi Man but it is probably top secret! I can tell you that Pi Man and Arc Bent have never been seen in the same room together! Also, Arc Bent does not keep any classified documents at his home!

I started thinking about bending circles when reminiscing about playing baseball when I was a kid. Sometimes there were not enough kids to play a baseball game so my twin brother, Mark, and I solved that problem by inventing a game we called "Paperball". We would start with crumbling paper and then completely wrap it with tape to make the paperball. Many times, it was with masking tape but sometimes it was heavier black electrical tape, which made for more of a sting if the batter was hit by a pitch. We would each design our own bat with a slab of wood and whittle the handle for personal comfort. We could play paperball with as few as two kids, if we used a propped-up board as the "catcher", so you didn't chase as many stray pitches. Paperball has been passed on to children and grand-children as a Grim Family Tradition!

Basically, an out is the catch of a fly ball, fielding of a grounder before it reaches the pitcher's mound, or a strike-out. You change sides after one out. A long fly ball past a designated area is a home run. We would occasionally hit what we called a "bat sticker" where it "stuck" on the bat a

Bending Circles Continued

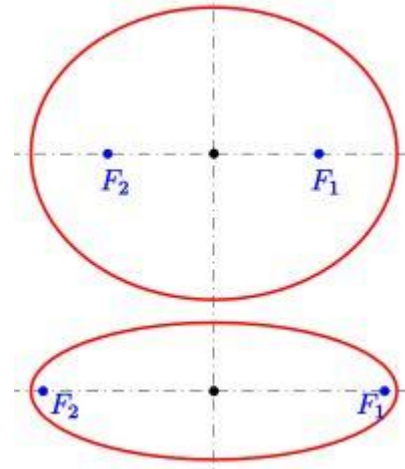
little before it was launched by the bat. It basically slid on the bat before leaving the bat allowing for a “flinging” effect, increasing acceleration. That would usually result in a home run that got out of the park faster than a normal hit. We learned how to bat right-handed and left-handed during paperball games.

So, let me get back to bending circles which is related to pitching the paperball. We developed our own special pitches. I had a sinker, a curve (which didn't curve but was thrown in a deceptive side-arm motion), a whip (where I whipped the ball behind my back before launching it), a screw ball (which would curve in on right-handed batters), and my dipsy doodle pitch. The screw ball was my most accurate pitch, which I used to be accurate in snowball fights. The dipsy doodle pitch would fool the youngest of batters. It was basically thrown like a basketball (bending down until it landed on the plate). It tempted the younger players because it came in slow over the plate but then dropped as they swung at it.

My brother Mark had a pitch where he flattened the ball a little bit and it created a distinct curve as it crossed the plate. That had to bend the circle of the paperball. That Bent Circle, an Ellipse, is what I want to talk about next.

Ellipses are much more than a circle. In fact, a circle is just a special case of an ellipse where each radius is the same length. An ellipse has two radiuses (or radii), the longer radius, when the ellipse is the longest across it and the shorter radius, when the ellipse is the shortest across it. A nice feature of an ellipse is that

it has two focal points, F_1 and F_2 . If you start at F_1 , go to any point on the circumference of the ellipse, and go back to F_2 , it will always be the same distance. So, if you took a piece of string with each end of the string at F_1 and F_2 , you could draw an ellipse by placing a pencil at the string, out the furthest, and drawing all the way around the focal points.



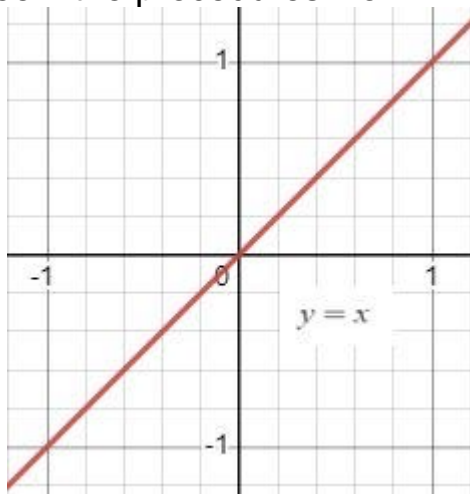
The focal points are interesting, but I want to concentrate on developing the area and circumference of an ellipse. It is nice to develop those formulas and I also want to see what is needed to create an ellipse with a π area and a π circumference.

To me, some of the most interesting procedures in calculus involves determining the area under a curve and determining the length of a curve. In both cases, when I first learned it, it surprised and amazed me how it works! For the area under a curve, you just work with the anti-derivative (integral) of a function (formula). Since the derivative relates to rates of change, I would have guessed the anti-derivative would be related to rates of change but, instead, it relates to the area under a curve! Even more amazing, for the length of a curve, you take the derivative of the function, square it, ADD ONE, take the square root, then take the anti-

Bending Circles Continued

derivative. If you didn't have the "ADD ONE" part, it would basically all cancel out and you're left back where you started. However, it gives you the length of the curve of a function. Calculus is amazing!

Let's start with something simple, where you practically know the answer before you calculate, so that you know the procedure works! Take the function of $y=x$ and look at it from $x=0$ to $x=1$. Under the function, it is right triangle with the two legs equaling 1 and the hypotenuse equaling radical 2. The area of that triangle would be $A=0.5 * \text{base} * \text{height} = 0.5 * 1 * 1 = 0.5$. The length of the function would be the length of the hypotenuse (using Pythagorean Theorem), which is radical 2. Let's see if the procedures work!



In calculus, the area under the function is the anti-derivative of $y=x$ evaluated from $x=0$ to $x=1$. That would be $0.5 x^2$ evaluated from 0 to 1 which would be $0.5 1^2 - 0.5 0^2$ which is 0.5 which is the expected area!

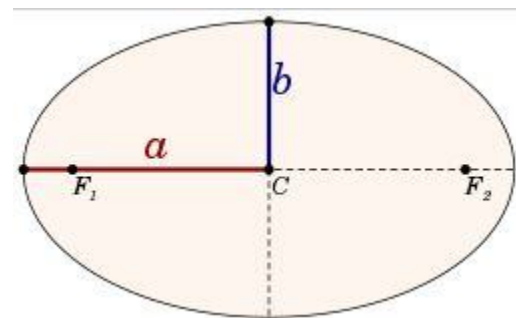
In calculus, the length of the curve of the function is the derivative of $y=x$, square it, add 1, take the square root, then take the anti-derivative, evaluated from $x=0$ to $x=1$. The derivative of $y=x$ is 1, 1 squared is 1,

add 1 to get 2, take the square root to get radical 2, take the anti-derivative to get radical 2 times x , evaluate it from 0 to 1 to get radical 2 times 1 minus radical 2 times 0, which is radical 2, the expected length of the curve!

It can be proven to work for all functions, but it is nice to see it work for a simple example above. Next, let's use the same procedure to find the area of an ellipse and the length (circumference) of an ellipse!

The formula for an ellipse with radius a and radius b is:

$$(x^2 / a^2) + (y^2 / b^2) = 1$$



The longer radius is where the ellipse is longest across it and the shorter radius is where the ellipse is the shortest across it. In the case of a equaling b , we would have a circle. With a and b both being equal to r , for a circle, the above formula reduces to the following for the formula of a circle:

$$x^2 + y^2 = r^2$$

It has been discussed in the past and you can find detail at Youtube, so I won't show the details at this time. However, if you use the above-mentioned area and function length procedures, for the function representing the circle ($x^2+y^2=r^2$), you

Bending Circles Continued

would get the familiar formulas for the area and circumference of a circle:

$$A = \pi r^2$$

$$C = 2 \pi r$$

Those same formulas can be written as:

$$A = \pi (r \cdot r)$$

$$C = \pi (r + r)$$

Now the two formulas look very similar and you can see how they are just a jump in mathematical operations (from addition to multiplication to exponentiation)!

So, now, let's allow calculus to find the area and circumference of an ellipse!

Let's start with the easier one, the area of an ellipse. Getting y by itself, the ellipse formula becomes:

$$y = b/a (a^2 - x^2)^{0.5}$$

Evaluation from 0 to a would get the area under the top right part of the ellipse which would be one fourth of the area of the whole ellipse. Therefore, we take the integral from 0 to a of the following:

$$4b/a (a^2 - x^2)^{0.5}$$

The integral becomes:

$$2ab (\text{invsin } (x/a) + x(a^2 - x^2)^{0.5}/a^2) \text{ evaluated from 0 to a}$$

That becomes:

$$2ab (\pi/2 + 0 - 0 - 0) = \pi ab$$

You can find more details at Youtube. I like the Organic Chemistry Tutor at:

www.youtube.com/watch?v=Mw3MeDLL8d4&t=1s

So, the area of an ellipse is probably what you would expect. Since the area of a circle is π times the radius times the radius again, the area of an ellipse is π times the one radius of a times the other radius of b or:

$$\text{Area of an Ellipse} = \pi ab$$

With that in mind, you might guess that since the circumference of a circle is $\pi(r+r)$ that the circumference of an ellipse might be $\pi(a+b)$. That is a good guess, and a common estimate for the ellipse's circumference, but it is not the exact answer. Let's use the calculus procedure to pursue an exact answer!

Let's start with the formula for the ellipse:

$$y = b/a (a^2 - x^2)^{0.5}$$

Like before, the focus from 0 to a is at the top right part of the ellipse which would be one fourth of the circumference of the whole ellipse. Therefore, we multiply by 4 as follows:

$$4b/a (a^2 - x^2)^{0.5}$$

Now, "all you have to do" is to take the above function, take the derivative, square it, add one, take the square root, then take the anti-derivative. Well, that is a lot of steps which I will skip here. You can find more details at Youtube. The Organic Chemistry Tutor link for that is at:

Bending Circles Continued

www.youtube.com/watch?v=r5pl_stL4c0&t=475s

We end up with an integral from 0 to $\pi/2$ of $4(a^2 \cos^2 t + b^2 \sin^2 t)^{0.5} dt$.

So, now we're there! We just take the integral of the above! Well, hold the bus, since it happens to be an impossible integral, meaning there are no symbolic solutions to the integral. In other words, there is NO FORMULA! Math has failed us here!

Imagine the effect of this on history. Astronomer and mathematician, Johannes Kepler (12/27/1571 - 11/15/1630), studied planetary motion but could only estimate the elliptical lengths that planets traveled. He would have to make a lot of calculations of small distances and add them up manually, without a computer. Calculus did not arrive until 1672 which still had no formula for the length of an ellipse. Mathematician Srinivasa Ramanujan (12/22/1887 – 4/26/1920) came up with a very good estimate of the length of an ellipse as:

$$\pi \{ 3(a+b) - [(3a+b)(a+3b)]^{0.5} \}$$

It is interesting to note that Ramanujan grew up in India with no formal training in mathematics. That may have allowed him to be less biased and less prejudice in mathematical analysis. As a result, he came up with a lot of interesting and eyebrow-raising results in mathematics. By age 26, in 1914, he moved to England, when mathematician Godfrey Hardy (2/7/1877 – 12/1/1947) mentored Ramanujan. Unfortunately, perhaps due to a change in climate by living in England,

Ramanujan only lived to age 32. Otherwise, he may have found more mathematical discoveries. Hardy wrote a book in 1940 called "A Mathematician's Apology", which apologizes for theoretical math while giving insight to his mind. He shared two classic proofs with an easy answer to two difficult topics, showing why radical 2 is irrational and that there are an infinite number of prime numbers.

Now, thanks to the computer age coming to the rescue, we can quickly, and accurately, calculate the length of an ellipse by allowing the computer to do the manual calculation (adding up bits), that is time-consuming without a computer. But, for mathematicians, it is a little unsettling and breaks away from pure mathematics. If there were a mathematical formula, it could be proven and convincing to use. With a computer procedure, you have to trust that the computer programmer created a correct calculation program. I have written my own computer program to make the calculation of the length of an ellipse but I am still trusting in the computer company that created the computer language program (BASIC language), which I used to write a program. So, there's a little paranoia in programming! But it works for the most part and perhaps, someday, there will be a new mathematical system to deal with it better in the future.

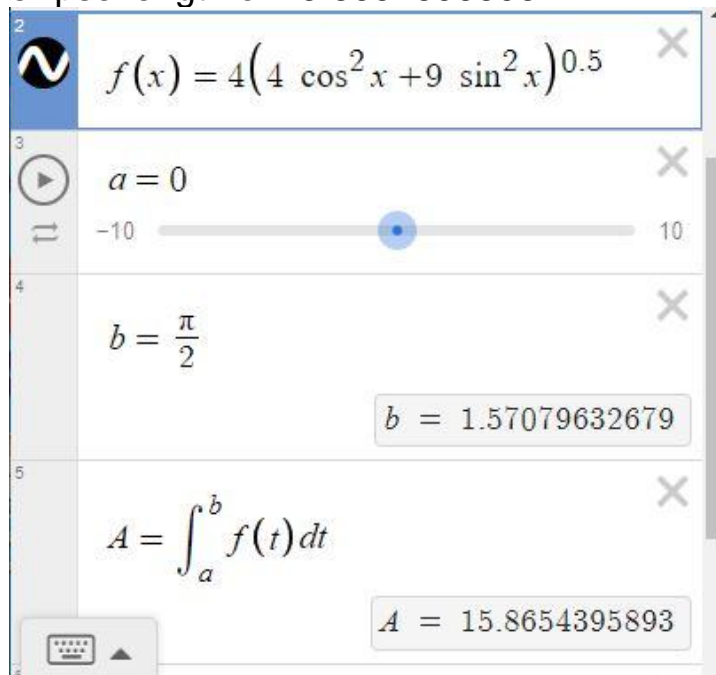
On the web, you can find Definite Integral calculators to work with an impossible integral like that for the length of an ellipse. Wolfram has it but I prefer Desmos, since they also have my favorite graphing calculator on the web, especially since it graphs $y=x^x$ for negative values of x

Bending Circles Continued

when other graphing calculators fail at that. You can find the Desmos integral calculator at:

www.desmos.com/calculator/6igls7qfiy?lang=id

I entered an ellipse with radius 2 and radius 3 at Desmos and get a correct ellipse length of 15.8654395893...



I get a similar result with the computer program I wrote on a Texas Instruments TI-99 computer in BASIC language in the early 1980s. It is called FUNCAREA, short for Function Area, which allows me to calculate the area under a function, even $y=x^x$ (which has an impossible integral), by adding up small rectangles under the function. In this case, 500 separations means 500 tiny rectangles. I see that my program misspelled the word “separation” but still accurately calculates. It calculates the upper right section at 3.966360117... so the full length of the ellipse is 4 times that, or 15.865440468...

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TI BASIC READY
>OLD DSK1.FUNCAREA
>EDIT 100
100 DEF FUNC(X)=(2*COS(X))^2+(3*SIN(X))^2)^0.5
>RUN
NUMBER OF SEPERATIONS FOR X
AXIS 500
LOWER LIMIT OF X AXIS 0
HIGHER LIMIT OF X AXIS 1.5707964
3.938086027
3.947510638
3.956935351
3.966360117
** DONE **

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I wrote the program on a TI computer because there was no web, or apps, to calculate it back then. I also wrote a graphing calculator on a DOS based computer because it was easier than using graph paper, and there were no graphing calculators at the time. You can download my TI programs, and an article about them, at:

www.mathisapath.com/tiprograms.html

You can find my programs written for a DOS based computer, and an article about them, at:

www.mathisapath.com/programs.html

The articles show how you can run my “old” programs on emulators and the web.

So, here is a summary of all results for an ellipse with radius 2 and radius 3:

Common Estimate: $\pi * (2+3) = 15.7079632679...$

Ramanujan Formula Estimate: $\pi * (15-99^{0.5}) = 15.8654375755...$

Bending Circles Continued

Desmos Calculation: 15.8654395893...

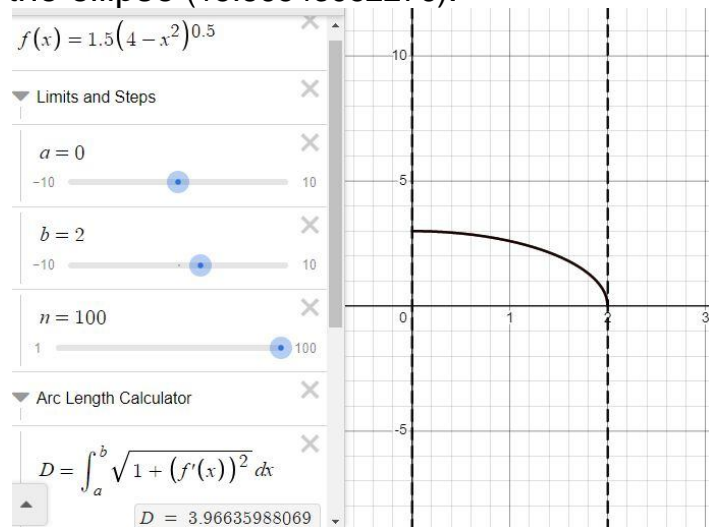
My TI Calculation: 15.865440468...

What is especially obvious to me, from above, is that Ramanujan had a very good formula for the estimate, which Kepler would have found quite useful and time-saving!

There is a nicer way to measure the length of an ellipse with a computer. Instead of the recipe of “taking the derivative, squaring it, adding 1, taking the square root, then taking the anti-derivative (with an impossible integral)”, skip all that and just add small line segments between points. I wrote a TI program in the 1980s to do that and Desmos has an Arc Length Calculator on the web to do it. You can find the Desmos arc length calculator at:

www.desmos.com/calculator/240dcqcns0?lang=fr

I entered the ellipse with radius 2, radius 3, and 100 line segments (the max available) at Desmos and get a result (3.96635988069) which is the upper right section length. So, four times that is the expected length of the ellipse (15.86543952276).



I get a similar result with the computer program I wrote on a Texas Instruments TI-99 computer in BASIC language in the early 1980s. It is called FUNCLen, short for Function Length, which allows me to calculate the length of a curve for a function by adding up small line segments between points on the curve of the function. In this case, 500 separations means 500 tiny line segments. It calculates the upper right section at 3.966341868... so the full length of the ellipse is 4 times that, or 15.865367472..., as expected.

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TI BASIC READY
>OLD DSK1.FUNCLen
>EDIT 100
100 DEF FUNC(X)=1.5*(4-X^2)^
0.5
>RUN

NUMBER OF SEPERATIONS FOR X
AXIS 500
LOWER LIMIT OF X AXIS 0
HIGHER LIMIT OF X AXIS 2

3.6337924515
3.698138042
3.77665792
3.966341868

** DONE **
    
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Now, with all the knowledge of an ellipse from above, I go to my original wondering to get to a π area and a π circumference. For a circle, a radius of 1 will get to an area of π and a radius of 0.5 will get to a circumference of π .

What about an area of π for an ellipse? Unlike the circle, there are many solutions! As long as each radius is the reciprocal of the other radius, you have it. For a slightly bent ellipse, I like the feel of about 1.1 and 0.91 for the radiuses ($1.1 \cdot 0.91 = 1.001$). For a more significant bend, I like the looks of radiuses that are about 1.37 and 0.73 ($1.37 \cdot 0.73 = 1.0001$). I also like it since 37 is my favorite number and the digits are

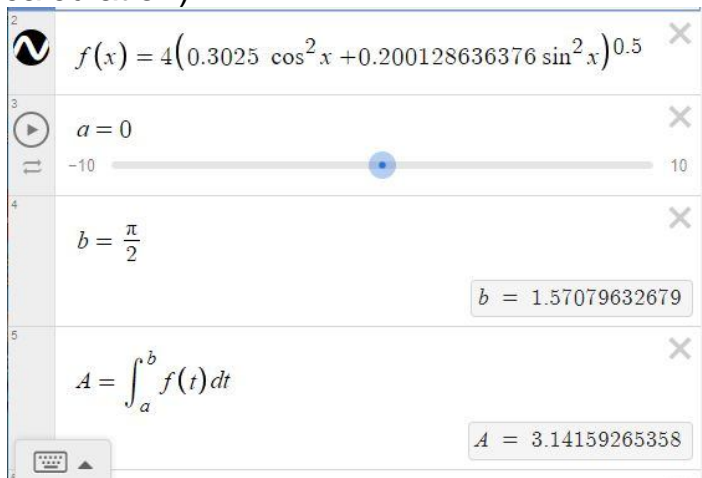
Bending Circles Continued

reversed for each radius. Here are some configurations that all equal 37:

$$\begin{aligned} 111 / 3 \\ 4^3 - 3^3 \\ (3 + 1/3)^3 - (1/3)^3 \\ (5^2 + 7^2) / 2 \\ 3^2 + 4^2 + 3 \times 4 \\ 3^2 + 7^2 - 3 \times 7 \end{aligned}$$

Also, the average body temperature of 98.6 degrees Fahrenheit converts to exactly 37 degrees Celsius. So, our temperature is 37% between the temperatures of ice and vapor. When Betty grew up, her favorite number was 21 and it is still her favorite number. If you multiply her number (21) by my number (37), you get 777!

What about a circumference of π for an ellipse? Once again, unlike the circle, there are many solutions. As an estimate for the circumference of $\pi * (a+b)$, I like $\pi * (0.55+0.45)=\pi$ with a slight bend. However, that is not fully accurate, just an estimate. So, I entered it into the Desmos calculator and to have an exact π circumference, each radius would need to be 0.55 and 0.447357392... (which is the square root of 0.200128636... from the calculation).



Could you have an ellipse that has both an area and circumference of π ? Let's check! You would have something close to this:

$$\begin{aligned} A &= C = \pi \\ \pi ab &= \pi(a+b) = \pi \end{aligned}$$

From that, you have the following two equations with two unknowns.

$$\begin{aligned} a+b &= 1 \\ a &= 1/b \end{aligned}$$

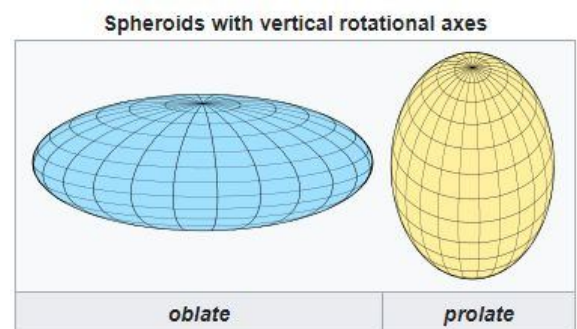
You could solve it with matrices or algebra. I'll use algebra. I'll substitute a from the second equation into the first equation to get:

$$\begin{aligned} 1/b + b &= 1 \\ b^2 - b + 1 &= 0 \end{aligned}$$

Solving for b with the quadratic equation, there are two solutions:

$$b = (0.5) * (1 + i \text{ radical } 3) \text{ and } b = (0.5) * (1 - i \text{ radical } 3)$$

Those are complex numbers (with imaginary parts), that just happen to be 2 of the 3 cubic roots of -1. The other cubic root of -1 is -1. Those two numbers do not match with measurements in the physical world. So, just like circles, there are no ellipses with π as both the area and the circumference (in the physical world).



Bending Circles Continued

Finally, I don't think it would be fitting to close until I talk about the relationship of an ellipse with the most popular American sport of football! If you rotate an ellipse into the third dimension, you have a spheroid. So, you have two radiuses the same size and the third radius of a different size. If all three radiuses were the same, it would be a sphere (common ball shape). Rotate along the longer diameter and you have a prolate spheroid (football shape). Rotate along the shorter diameter and you have an oblate spheroid (M&M candy shape). It makes me want to say "Let's toss the old prolate spheroid around and then later we'll snack on some oblate spheroids"! Two interesting things, to me, about a football shape, is that it can fly through the air with a beautiful spiral motion and if it drops to the ground, it is anybody's guess where it will go!

A Sphere has each radius at r . A Spheroid has radiuses of a , b , and c . The volumes are as follows:

$$V (\text{Sphere}) = \frac{4}{3} \pi r^3$$

$$V (\text{Spheroid}) = \frac{4}{3} \pi abc \text{ or } \frac{4}{3} \pi a^2 c$$

(since a and b are equal)

A football has diameters of about 6.7, 6.7, and 11.1 inches which has radiuses of 3.35, 3.35, and 5.55 inches. Therefore, the volume is:

$$V = \frac{4}{3} \pi a^2 c = \frac{4}{3} \pi 3.35^2 5.5 = 260.90 \text{ cubic inches}$$

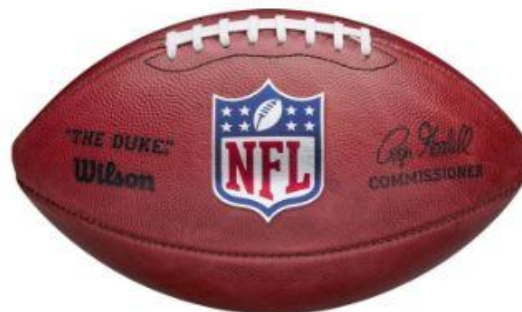
So, let's create a pi-based football! I see that the 11.1 and 6.7 dimensions have a ratio of $11.1/6.7$ or 1.66. Let's make the ratio at 1.5707964... which is $\pi/2$. And let's make the volume at 100π which is about 314.16. Since c will be $a \cdot 1.5707964$ then the volume will be as follows:

$$V = \frac{4}{3} \pi a^2 c = \frac{4}{3} \pi a^2 a \cdot 1.5707964 = 314.16$$

Solving for a , we get $a=3.6278347$ so c would be 1.5707964 times that or 5.6985861.

Twice the above radiuses of a and c would be 7.26 and 11.40.

Therefore, a football, with diameters of 7.26 inches by 7.26 inches by 11.40 inches, would have a ratio of diameters at $\pi/2$ and a volume of 100π cubic inches. This pi-based football could be constructed, which is slightly different than a standard football. Put it in a football game, call it the " π BOWL", and eat some pie!



Genealogy Report for 2/7/23 SIG Meeting

The genealogy group met at 7:00 pm on February 7th for a Zoom meeting. Eleven were in attendance.

Hal had not yet had a chance to make his presentation on how genealogy research has changed in the past ten years for his Spring Hill discussion group. We are all looking forward to hearing his thoughts.

Tim shared some information about his research including his grandfather who was on the Erie police force. He also mentioned that St. Stanislaus Church would be having a pancake breakfast on Super Bowl Sunday.

Sue made a presentation on Orphan Court Records. Historically, an orphan was a fatherless child and guardians were appointed to manage the orphan's property, rather than the orphan themselves. This was whether the mother still lived or not. The guardian took on financial risk as they were held liable for any property loss.

Paul's research on his relatives on the Channel Islands off the coast of England turned up a frequency of anemia in the women in his line. It still shows up in some of his female cousins today and they are grateful for his research which he has passed along to his family members.

Liz is coping with a common problem in genealogy research: of the seven children in a family who married, names and places of birth were inconsistent. She is leaning towards the information given by the eldest and only daughter.

Sue shared some information on immigration manifests. The most complete information is on manifests 1906, or later as they had the names of people and towns where the immigrants were going and other valuable information. She still likes <https://stevemorse.org/> best for finding immigration records.

Submitted by Connie Edwards



Smartphone & Tablet Report for 2/27/23 SIG Meeting

Paul Francis shared how a purchased item arrived with instructions in Chinese. He described how he used Google Translate with his iPhone camera to produce an understandable version of the instructions in English.

Last month we covered the new feature called Advanced Data Protection with an interview of Apple's Senior VP of Software Engineering. This month we added information on the pros and cons of using end to end encryption with a YouTube video "Security Setting EVERY Apple User Needs to Fix". The video emphasized that turning on ADP means you must accept the total responsibility for your data since Apple cannot decrypt your data. Don't turn this on if you don't want to be responsible for your data. I chose NOT to turn on ADP since I have two older devices that cannot be updated to the latest operating system necessary to use ADP. Those devices would be locked out of my data in iCloud if I turned on ADP.

We then watched a disturbing video that described a Wall Street Journal article "Apple's iPhone Passcode Problem: Thieves Can Ruin Your Entire Digital Life in Minutes". It showed how thieves stole an iPhone and its owner's passcode to unlock the device, changed the Apple ID password, turned off Find My iPhone, signed out of trusted devices, removed the recovery contact, changed the trusted phone number and changed the email address. All before the owner could take any steps to stop it. The worst part of this is that changing the Apple ID took only the passcode that unlocks the phone and does not require the old password. Apple must fix this vulnerability!

This report shows the importance of using at least six numbers in the passcode (or longer if you wish) and never using the passcode in public where someone could observe or record you entering it. Use FaceID or TouchID to unlock your phone when others are around and if it wants your passcode, wait until you cannot be observed.

If you make your passcode longer or more complex you might not remember it. Security Lockout, which works only if Find My is enabled, limits the number of unsuccessful tries before your phone is locked out. If you can't remember your passcode, the only recourse is to wipe the phone and return it to as new status. This emphasizes using either iCloud backup or computer backup of your phone so you can restore your data and settings.

We continued on the security theme by talking about Two Factor Authentication to add another degree of security beyond the username/password entry. A video by Leo Notenboom discussed in detail using an SMS to receive a six digit code, authenticator apps which proved a code that changes every 30 seconds and hardware security keys and his choice of the best 2FA option. The LastPass debacle caused me to abandon that password manager in favor of 1Password, change all my passwords and add 2FA to all accounts that would accept it and that was nearly all. I described my logic in choosing the SMS option despite it being perhaps the least secure of the three. It still adds security beyond the username/password.

Smartphone & Tablet Report Continued

What appears to be the most secure approach to proving your identity, for that is what the username/password is intended to do, is to go passwordless and use passkeys. Apple, Microsoft, Google and a number of other companies have joined an alliance called Fast ID Online (or FIDO) to make this dream a reality. How this works is devices and browsers store a credential, called a passkey, that employs public key cryptography in communications with an account. The passkey never leaves your device so it can't be leaked from websites or apps. You cannot be tricked into using the

passkey on a fraudulent website. There is nothing to create or remember. It is all done for you. Unfortunately the number of websites or apps that can use this technology is limited but will gradually increase.

Finally, just for fun, we demonstrated ChatGPT, the AI chatbot.

The next meeting of this SIG will be on Monday, March 27, 2023.

John Fair



Secretary's Report for 2/16/23 CUE Meeting

Business meeting was called to order at 7:03 by President Conrad Sobczak.

Members Present: Robin Boyd, Larry Brown, Kim Conti, John Fair, Paul Francis, Rick Godzwa, Don Grim, Ed and Nancy Group, Dave Howell, Larry Johnson, Marcia Keller, Hal Kelley, Sue Mueller, Conrad Sobczak, Lis Wisnieski, Carl Zalewski, and guest speaker, Hewie Poplock.

Quorum (with 65 members, 13 represents 20% of members): The number of member attendees meets the quorum requirements.

There were no additions or corrections to the January meeting minutes which were published in the February newsletter.

Reports:

Treasurer's Report, John Fair reported the current bank balance with the only recent expenditures the \$2 monthly bank service fee.

Membership Report, John Fair: When John learned that Pittsburgh's CP User group had dissolved in December, he encouraged interested members to try out our club which meets via Zoom by attending six meetings before making a commitment (this proposal was approved by the CUE board). A small group of former CP User members meets as a special interest group (next meeting Feb 19). John's proposal will be presented at that time.

Special Interest Groups:

- Genealogy, Sue Mueller reporting: Meets first Tuesday of each month via Zoom. In February we discussed using historical guardianship/orphan court records in your research. See full report in the March newsletter.

- Smart Phones, John Fair reporting: Meets fourth Monday of the month via Zoom. In January the group discussed fast charging, password managers, and data breeches. See full report in the February newsletter.

- Mac, Windows Help, Photography: No report. With the passing of SIG leader Lou Cioccio these SIGs are currently in limbo.

Newsletter: Editor Don Grim encourages members to contribute articles to the newsletter.

Unfinished Business:

- Members are reminded that we will have an in-person social meeting in April at Wayside Presbyterian Church at 5:30 p.m.

New Business:

- None

The meeting was adjourned at 7:20, and Hewie Poplock spoke about streaming movies and capabilities of smart TVs. He also invited members to check out the Tech for Seniors Facebook page to learn about available programs.

Respectfully submitted,

Sue Mueller, Secretary

A Note from the Editor

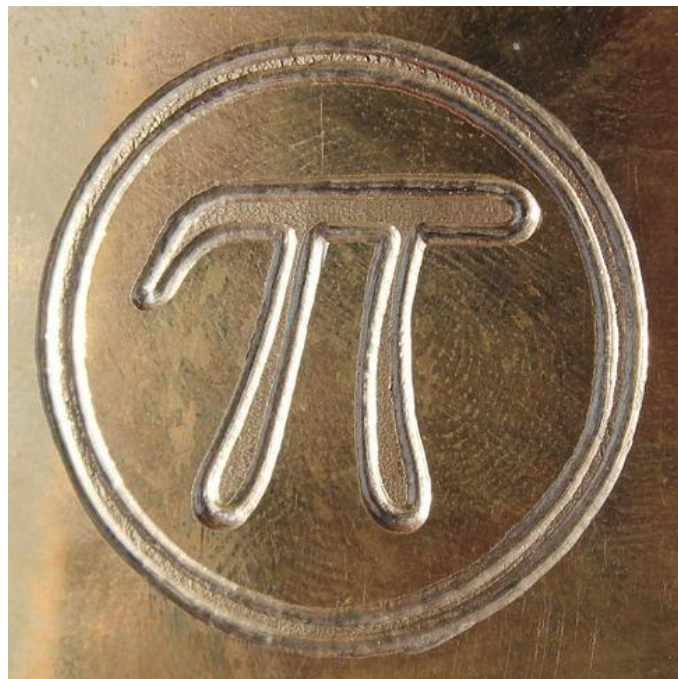
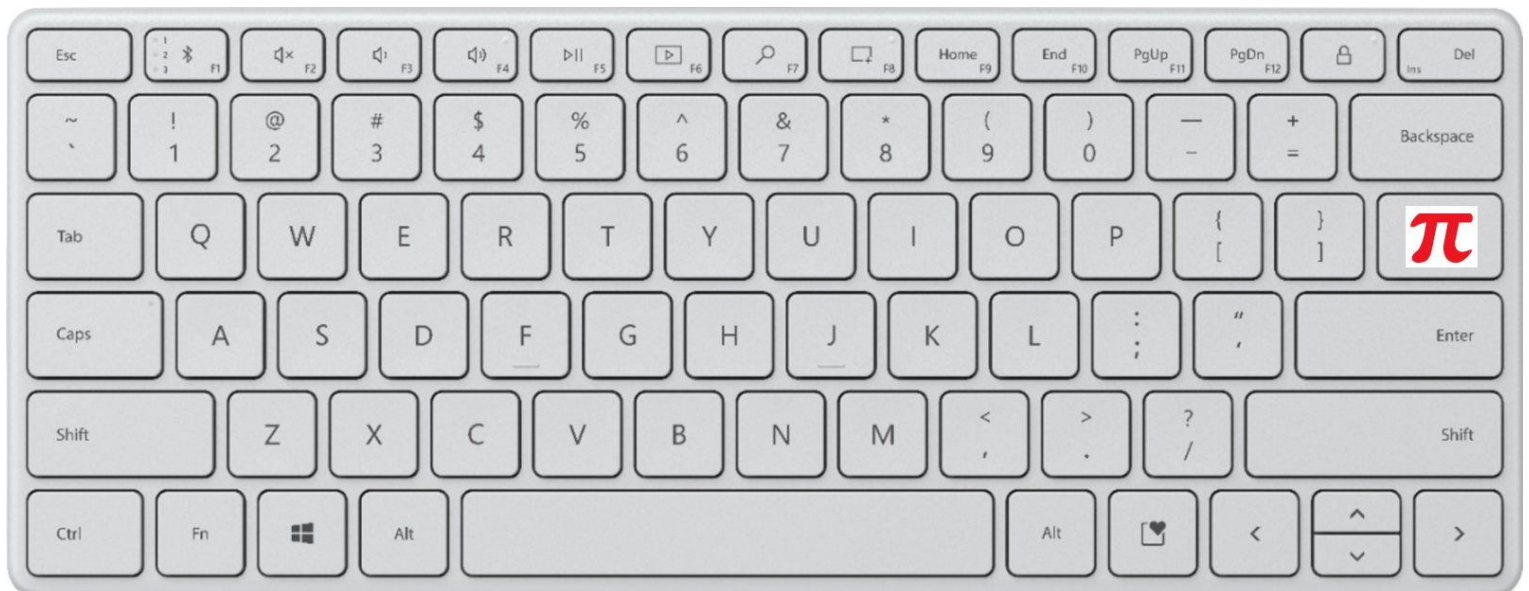
As usual, feel free to contribute information for the CUE newsletter. Whether it is small, large, an article, a tip, information, or pictures, you can send it to me and I will plan to include it in the newsletter. You can reach me at grimcyber@yahoo.com.

Remember that you can find recent news at the CUE website (cuerie.com). At times,

the website will have more recent news than the CUE newsletter since the website is updated continuously and the newsletter is updated monthly.

Stay Safe!

Editorially Speaking, Don Grim



PLEASE PRINT

**COMPUTER USERS OF ERIE
MEMBERSHIP APPLICATION**

Today's Date _____

Last Name	First Name
Address	
City, State	Zip
Home Phone	Cell Phone
Your Email	

The yearly dues are payable in August of each year. The dues are \$24 annual.

For NEW members only, when you join outside the annual cycle your initial dues are based upon the month you join. Follow the schedule below.

August \$24	September \$22	October \$20	November \$18
December \$16	January \$14	February \$12	March \$10
April \$8	May \$6	June \$4	July \$2

Information provided on this form will be placed into a CUE Membership Directory

What is your Computer or Device: (Circle)

Windows Mac Android iPhone iPad
Tablet Linux Other

What is your level of expertise? (Circle)

Novice I know some I want to learn more
Expert Geek

Send your completed application
to:

Computer Users of Erie

PO BOX 8941

Erie, Pa 16505-0941

What do you wish to gain by joining Computer Users of Erie?

Student membership is just \$15 per year (provide proof of student status)

CUE Officer Information

Officers

President	Conrad Sobczak	cjsob16511@hotmail.com	814-899-9699
Vice President	Paul Francis	pdfflyer@roadrunner.com	814-882-1175
Secretary	Susan Mueller	suepasta@roadrunner.com	814-622-1262
Treasurer	John Fair	johncfair@gmail.com	814-474-3055

At-Large Board

Lawrence Brown	larrybrown0191@icloud.com	814-323-1067
Don Grim	grimcyber@yahoo.com	814-461-8289
Marcia Keller	dekmak43@gmail.com	814-449-4682
Hal Kelley	hal_kelley@outlook.com	814-836-1803
Suzanne Matthews	pdxmatthews@aol.com	814-790-4185

Alternate At-Large Board

Open Thanks to Lou Cioccio for his past service!

Special Interest Groups

Chromebook	Don Grim	grimcyber@yahoo.com	814-461-8289
Digital Photo	Open	Thanks to Lou Cioccio for his past service!	
Genealogy	Susan Mueller	suepasta@roadrunner.com	814-622-1262
MAC	Open	Thanks to Lou Cioccio for his past service!	
Smartphone & Tablet	John Fair	johncfair@gmail.com	814-474-3055
Windows / BUG	Open	Thanks to Lou Cioccio for his past service!	

Other Resources:

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Editor	Don Grim	grimcyber@yahoo.com	814-461-8289
Membership Chair	John Fair	johncfair@gmail.com	814-474-3055
Webmaster	Tom Kuklinski	tkuklinski@gmail.com	814-746-9165

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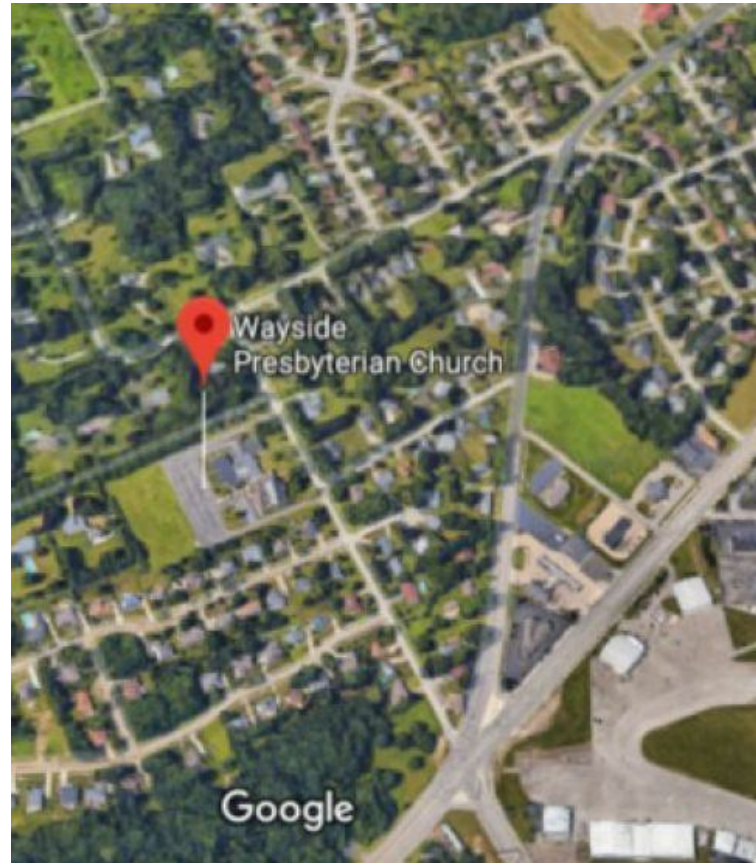
Directions to Wayside Presbyterian Church for CUE Meetings

Wayside Presbyterian Church, at 1208 Asbury Road, is approximately three blocks north of the intersection of Asbury Road and Route 5. This intersection is at the northwest corner of the Erie International Airport property. Following Asbury, turn left at the first marked driveway for the church. During the afternoon winter schedule (10:00 AM for the months of November, January, February and March), entry is through the two sets of blue double doors. Use the buzzer to gain entry if the doors are locked. During the normal evening schedule (7:00 PM the remaining months) use the double doors on the south side of the Christian Education wing. Signs are posted in the building to direct you to the meeting room.

From West of Erie International Airport: Follow Route 5 to the intersection of Asbury and Route 5. Turn hard left onto Asbury Road. Look for the church on the left approximately 3 blocks north of the intersection.

From South of Erie: Take Interstate 79 north to the 26th Street (Route 20) Exit. Bear left onto 26th Street (Route 20) west. Follow Route 20 about 3.4 miles west to Asbury Road. Turn right (at the Sheetz Gas Station) onto Asbury and follow it straight across Route 5. Look for the church on the left approximately 3 blocks north of the intersection.

From East of Erie International Airport: Follow 26th Street (Route 20) west to Asbury Road. Turn right onto Asbury and follow it straight across Route 5. Look for the church on the left approximately 3 blocks north of the intersection. OR, follow 12th Street (Route 5) west past the airport to Asbury Road. Turn right onto Asbury Road. Look for the church on the left approximately 3 blocks north of the intersection.



About the Newsletter

The CUE Newsletter is published monthly by the Computer Users of Erie (CUE), an independent nonprofit computer user group, dedicated to the education and support of our members. The opinions expressed herein are those of the individual authors or the editor, and do not necessarily reflect the opinions of CUE. This publication is Copyright © 2018 by the Computer Users of Erie. All rights reserved. Permission to reprint is hereby granted to any Nonprofit Organization, as long as proper credit is given, or not restricted by the original author or source. **Advertising:** Advertising is welcome from both our members and commercial sources. For current advertising rates, please send an email to the Editor requesting a copy of the Ad Rates file. **Address Changes:** Any recipient of the newsletter is urged to submit a change of address notification to the Editor, either via US Mail to the address shown below, or (preferably) via email, so we may keep our records accurate. **Newsletter Exchange:** CUE welcomes newsletters from other user groups. If you would like to exchange newsletters, either by US Mail or via electronic (Internet) delivery, please send your newsletter to the address listed below. We will add your name to our mailing list and send you our newsletter in return. **Submissions:** Submissions are always welcome from our members or outside sources. Submissions may be articles, images, cartoons, etc. For first time authors, please request a copy of our Submissions Guidelines from the Editor, prior to submitting any items. This will help to eliminate publication delays. Submissions are due by the 5th of each month. **Correspondence:** General correspondence to CUE may be sent via US Mail to: Computer Users of Erie, PO Box 8941, Erie, PA 16505-0941 USA. Email to: cuerie@gmail.com. Editor Email to: grimcyber@yahoo.com.

CUE Membership Benefits



As the largest computer users group in northwest Pennsylvania, CUE has served Erie and surrounding communities since 1982. CUE provides a forum for people to learn about computers and have fun doing so. The group meets the third Thursday each month, with the exception of the months of July and December. In July the group gathers for a picnic and December is the annual holiday party (dates vary). CUE meetings are at Wayside Presbyterian Church, 1205 Asbury Road, Erie. Meetings from April through October are at 7:00 p.m. From November through March, the meetings are at 10:00 AM in the morning, except it will stay at 7:00 p.m. during the Caronavirus Pandemic.

Our monthly meetings are open to the public regardless of age or ability. Many of our members are senior citizens who span a wide range of capabilities and interests but share a desire to know more about how to use computer related technology. Our role is to provide a forum for continuous learning from each other. CUE has a closed Google gmail group that is used to communicate with members and to post questions/problems to seek answers from the membership. Members pay an annual membership fee of \$24 to receive a membership directory, monthly newsletter, availability to monthly general meetings, and any of the Special Interest Group (SIGs) meetings, usually held in a member's home. Locations and times vary, so check the online EVENTS Calendar on the website for the latest information. SIG topics include:

- Digital photography [and photo safari]
- Genealogy
- Macintosh computers
- Computer troubleshooting
- Beginners users group (BUG)
- Handheld smartphones and tablets

CUE is a member of the Association of Personal Computer User Groups (APCUG). APCUG is an International, platform-independent, volunteer-run, non-profit organization devoted to helping member User Groups offer enhanced services to their members. Some of the membership benefits include:

- Speakers bureau
- Free virtual technology conferences
- Regional conference
- Push newsletter articles
- Discounts and special offers from vendors
- User group newsletters online

Find us online at <http://www.cuerie.com/>. And Facebook @cuerie

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