



Practice Problems Unit 8

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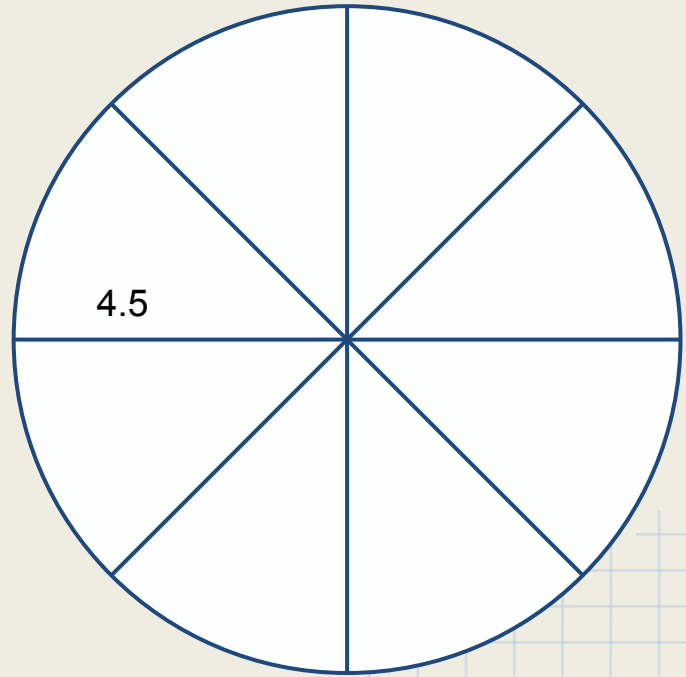
Problem Number 1

Patrichard is enjoying a slice of pi flavored pie on his 5th cousin twice removed's half birthday. This is the first time he ever met his 5th cousin twice removed, but he is being asked a big favor. His slice is $\frac{1}{8}$ th of the total pie, and is 4.5 inches long. What is the area of the slice?



Number 1 Solved

First thing first, we need to use the radius (4.5) to find the entire area. in a circle, $A = \pi(r^2)$. That simplifies to $A = 20.25(\pi)$. One eighth of that is about 63.62.



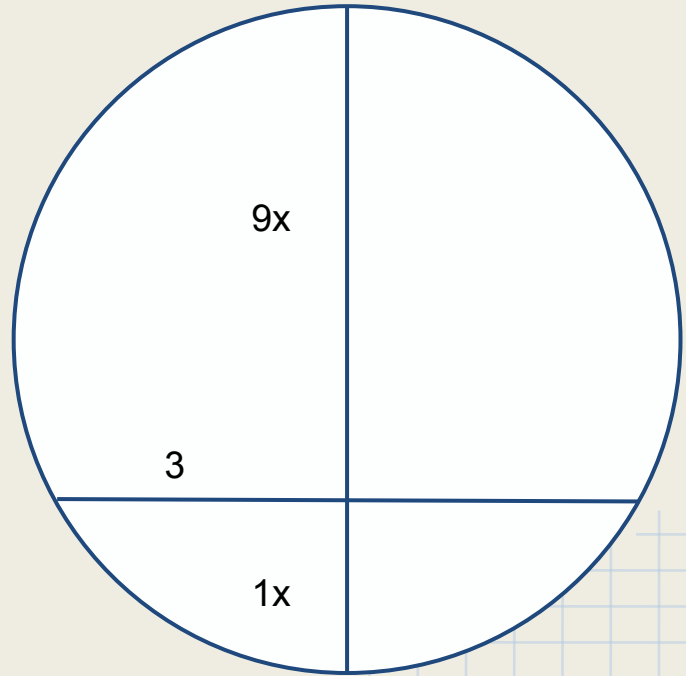
Problem Number 2

Samulysses was contemplating changing his name, when he fell into a lake from his Apache helicopter. The lake is circular. He is along the diameter, and he thinks that the fastest way across is to swim across a chord with a length of 3 miles, on either way. If the diameter is cut in a ratio of 1 to 9 by the chord, what is the second fastest path?



Number 2 Solved

We know that the chord segment times the chord segment is equal to the diameter segment times the diameter segment. In other words, $9x^2 = 9$. Simplified, $x^2 = 1$. The square root of 1 is one, so $x = 1$. The shortest path is along the chord, with length of one mile.



Thank you!

As this is the last unit connections, I would like to thank Mrs.Kight for taking the time to read all of the websites every unit. I appreciate the dedication you have for our learning. I thought making this was hard, I can't imagine grading 100!