

"All right, folks! Welcome back to Turnip the Beet!" the host announces through the blaring speakers, "We have eliminated four-fifths of our contestants and now down to our two finalists here, Yiannis and Ricky, competing for a grand prize of \$1,000! With only one hour, they will create a dish that tastes like home."



Yiannis chews his lip nervously, thinking about his yıayıá (Greek for grandmother), sick at home, unable to afford hospitalization and treatment for her meningitis. Yıayıá needs this prize money to buy to soothe her meningitis. Inspired by his yıayıá, Yiannis decides to make her famous Greek dish, chicken pot pie - a recipe he remembers by heart. Yiayiá usually cooked for the entire family - 12 people. The ratio for the amount of food would be too much for the three judges. He'd have to adjust the recipe by a fourth.



He breezed through reducing each ingredient by a fourth until he reached the last problem:  $\frac{1}{4}$  of  $\frac{3}{8}$ . To help him solve it, he draws a rectangle, cuts it into eight equal sections, and colors three sections to represent  $\frac{3}{8}$ . Then, he draws four horizontal lines and shades in one of the four sections to represent  $\frac{1}{4}$ . The overlapped shaded pieces shows  $\frac{1}{4}$  of  $\frac{3}{8}$  which was 3/32. He looked up at the clock. His eyes widen and he shakes his head. There is only  $\frac{4}{5}$  of the 60 minutes of cooking time left.

reas=

Sprinting to shelves stocked with food, Yiannis begins searching for the ingredients he needs among the cluttered shelves: pepper, parsley, rosemary, 1/2 gallon of milk, a small sack of flour, chicken, chicken broth, salt, water, a package of butter, shortening, one carrot, three ears of corn,  $\frac{1}{2}$  pounds of green beans, and  $1\frac{1}{4}$  pound of peas. He sprints back to his counter and begins to dice and chop the vegetables. He glances at his recipe. Yiannis always thought there were too many peas in yiayiá's recipe when he ate it. He decides to subtract  $\frac{3}{4}$  from the  $1\frac{1}{4}$  pounds of peas from her recipe. To solve the problem, Yiannis knows  $1\frac{1}{4}$  lbs is the same as 4/4 pound  $+\frac{1}{4}$  pound or 5/4 pounds. Subtracting  $\frac{3}{4}$  of a pound from 5/4 pounds , Yiannis calculates 2/4 pound which is the same as  $\frac{1}{2}$  of a pound of peas. Let's not waste it! He sprints to the shelves once more, returning the excess peas.



Dashing back, Yiannis dices the carrots and grates vertically down the cobs of corn with each knife stroke removing ½ of the corn kernels. Lining up the green beans, he chops all in half becoming 32 whole green beans to 64 green bean halves. He transitions the vegetables to a bowl to make working space for the sauce.



Using the adjusted ratio for the portions, Yiannis begins measuring and mixing the milk, chicken broth, and wait, where is the seasoning mix? Yiannis smacks his forehead! It's a cooking show, of course, they don't have seasoning mix! He rushes to the crowded shelves once more to grab pepper, parsley, salt, and rosemary. Yiayia's recipe calls for 2  $\frac{1}{2}$  teaspoons of seasoning mix. He will have to divide the number of teaspoons needed by 4 as  $\frac{1}{4}$  of a quantity is the same as dividing by 4. To divide 2  $\frac{1}{2}$  teaspoons by 4, Yiannis uses a strategy of dividing 2  $\frac{1}{2}$  by 2 to get 1  $\frac{1}{4}$ . He repeats the process and divides 1  $\frac{1}{4}$ by 2 again and gets  $\frac{3}{8}$ . He smiles and measures out  $\frac{3}{8}$  of the pepper, parsley, salt, and rosemary to flavor his sauce. Stirring the sauce, the aromatic smell wafting across the room eliciting everyone's appetite. Yiannis pours the sauce into the same bowl as the vegetables and stirs the two together until the greens are coated in the still-steaming sauce. His eyes flit to the screen. Another 1/6 of his time spent!?! I need to move on to the dough.



Viannis measures salt, butter, shortening, water, and flour. As he pours the water and salt into the red bowl, Viannis fondly recalls times before meningitis took over Yiayiá's life. He remembers playing with the dough. Yiannis snaps back to reality. Maybe I should add more flour he thinks to himself. He decides to add  $\frac{1}{2}$  of a cup to the  $\frac{5}{8}$  cup of flour for a total of  $1\frac{1}{8}$  cup of flour. He measures in the rest of the ingredients and mixes the dough together. He pulls it out of the bowl and begins to knead the dough. When the dough is free of chunks, Yiannis splits the dough into two halves. He uses a rolling pin to flatten the dough until it has the thickness of the fabric and places the flattened dough into a pie pan. It is time for the most integral part of a chicken pot pie... The chicken! Yiannis dices the raw chicken and chucks it into the pan. The sizzling chicken is stirred then tossed into the bowl of saucy vegetables. He stirs until the chicken, likewise to the vegetables, is coated in sauce. He pours the mixture into the pie pan and uses the second half to cover the mixture. He places the rolled out dough on the surface of the pie, meticulously pushing the edges of the dough together.



"% of your time is over, I repeat % of the 60 minutes is over," the host calls. Yiannis's eyes widen. He looks at his yiayiá's recipe. Her recipe called for 1 hour 200 F. He glances at the clock, I don't have time for an hour! Yiannis puts the pie inside the oven, setting the temperature for 800 F and a 15 minute wait time. He awaited the cooking pie, impatiently lingering by the oven until... Ding! Yiannis snatches it out of the oven, panicking with one minute remaining. "Hot! Hot! Hot!" he exclaims as he carelessly snatches the steaming pan in his frenzy. He glances at the pie and gasps.

The pie was burnt! The top was scorched and blackened. He takes a deep breath. Knowing there is no time to make a new pie, pushes through and hurriedly cuts the pie into three equal pieces, so each judge receives  $\frac{1}{3}$  of the burnt food. He places each one on an individual plate, allowing the creamy chicken broth sauce to spill out onto the plate.



"5!" Yiannis hurriedly wipes away any unwanted drips. "4! 3! 2! 1!" Yiannis lifts his hands. The judges' comments pass in a blur. Then, the judges' decision came. Yiannis takes a deep breath as the judges look at the two contestants. "Out of the original ten, only one-tenth of you had a chance to win this competition. Now, you two have narrowed your chance down to half. Today, we will find out who the winner of the \$1,000 is...

"Ricky!" Yiannis's posture slumps as Ricky receives the giant check. Yiannis clutches his hair and cries. Ricky notices the change in posture. He recalls moments before the show began; Yiannis was sharing the story about his grandma - his Yiayia - about how he needed to win this competition for her.



Glancing at the check, to Yiannis then back at the check, Ricky begins walking over to Yiannis.

"Here, man. You need this more than I do," Ricky says, handing over the check.

## Epilogue

Yiannis's grandmother recovered with new medical treatment paid for using two-thirds of the prize money and the other one-third of the prize money was returned back to Ricky. Ricky, Yiannis, and *Yiayia now* spend weekends snacking on delectable treats made together. Competitors can become lifelong friends! Nervous chef, Yiannis, must win the cooking championship to help his sick grandmother. Yiannis must use not only his cooking skills but his fraction math skills to alter the originally large recipe for 12 for the three judges. Join the math antics that occur in this cooking challenge!

## ABOUT THE AUTHOR



Emy Chen is a twelve-year old seventh grader attending Oak Middle School. Her favorite subjects are math and science, (although she loves to curl up with a good book!) Emy's hobbies are to play basketball and read.