6. A city cab service provider charges customers based on distance and time. The service charges $2 for the first two kilometers. After the first two kilometers, the service charges $0.50 per kilometer for the next six kilometers. After six kilometers, the customer is charged $1 per kilometer. At the end of the ride, a fee of $0.2 per minute is charged based on the total travel duration. Write a program that reads the distance traveled in kilometers and the time taken in minutes for a cab ride and computers the fare based on the service's charges.
8. The Babylonian algorithm to compute the square root of a positive number n is as follows:
   (1) Make a guess at the answer (you can pick n/2 as your initial guess).
   (2) Compute r = n / guess.
   (3) Set guess = (guess + r) / 2.
   (4) Go back to step 2 for as many iterations as necessary. The more steps (2) and (3) are repeated, the closer guess will become to the square root of n.
   Write a program that inputs a double for n, iterates through the Babylonian algorithm five times, and outputs the answer as a double to two decimal places. Your answer will be most accurate for small values of n.
13. Scientists estimate that consuming roughly 10 grams of caffeine at once is a lethal overdose. Write a program that inputs the numbers of milligrams of caffeine in a drink and outputs how many of those drinks it would take to kill a person. A 12-ounce can of cola has approximately 34 mg of caffeine, while a 16-ounce cup of coffee has approximately 160mg of caffeine.