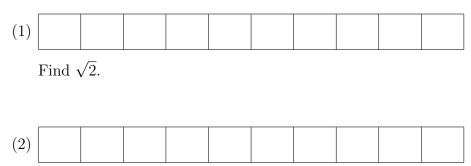
MAT 331 Fall 2017, Practice Quiz 1 Quiz on Tuesday Sept 12, 2017 (30 minutes)

Name	ID	Score

For answers that are real numbers, include all non-zero digits to the left of the decimal place, include the decimal place in a box, and as many digits to the right of the decimal place as will fit in the remaining boxes. Truncate, do not round, e.g., given five boxes for $\sqrt{7} = 2.64575131106\ldots$, write "2.645". If a number has no digits to the left of the decimal point, start with the decimal point, e.g., given ten boxes, write $1/\sqrt{2}$ as ".707106781". Right justify integer answers, and place blanks (or zeros) in any remaining boxes on the left. For example, given 10 boxes to write 2^{20} either write "0001048576" or "1048576" preceded by three blank boxes.



Sum 1/n from n = 1 to n = 10,000.



Use the command solve to solve $x + \sin(x) = e^{-x}$.



Use the command root to find the largest real root of $p(x) = x^8 - 10x^7 - 2x^3 + 3x^2 + 4$.



What is the maximum value of $\exp(\cos(10x)) + x - x^2$ over all real x?



Find the first place in the decimal expansion of π that the sequence "2017" occurs. What are the ten digits that follow these? Use the command y=char(vpa(pi,n)) to create a string on the first n digits (including the 3 and the "."). Then use strfind.