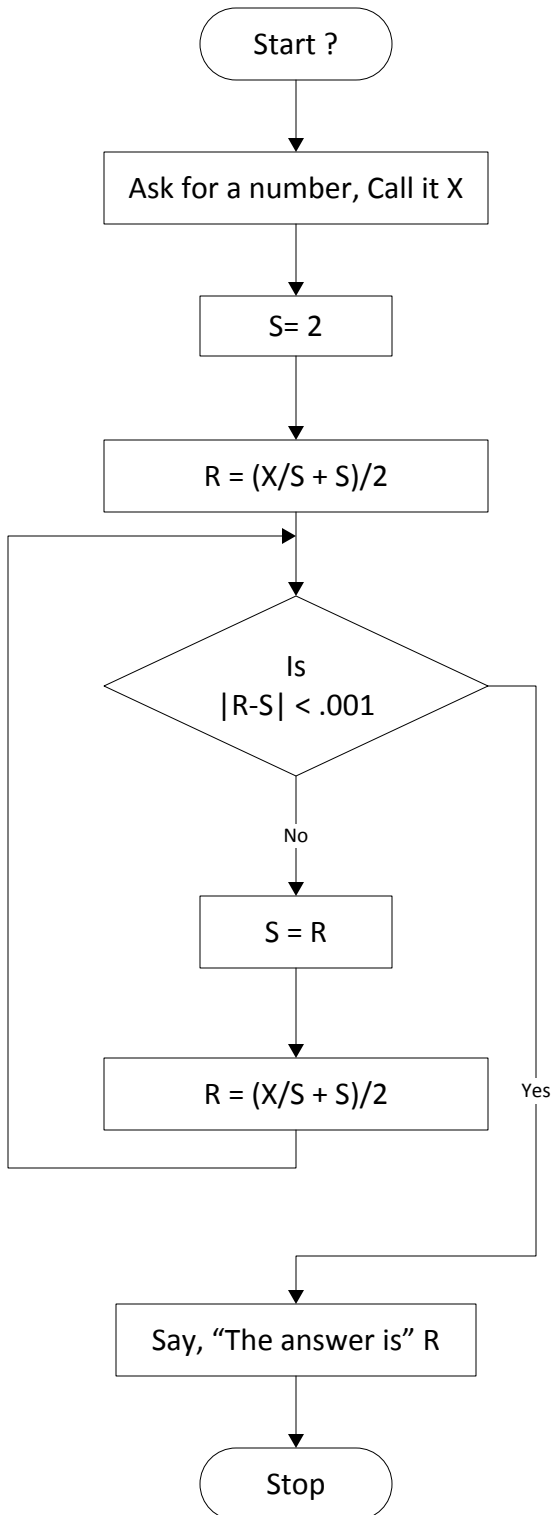


Name: _____

Course # and Time: _____

Date In: _____



$x = 2$
 $S = 2$
 $R = (2/2 + 2)/2 = 1.5$
 $|R - S| = |1.5 - 2| = .5$ which is not $< .001$
 $S = 1.5$
 $R = (2/1.5)/2 = 1.4167$
 $|R - S| = |1.4167 - 1.5| = .0833$ which is not $< .001$
 $S = 1.4167$
 $R = (2/1.4167 + 1.4167)/2 = 1.4142$
 $|R - S| = |1.4142 - 1.4167| = .0025$ which is not $< .001$
 $S = 1.4142$
 $R = (2/1.4142 + 1.4142)/2 = 1.4142$
 $|R - S| = 0$ which is $< .001$
Say "The answer is 1.4142"
Stop

Directions:

- 1) Compute a similar walkthrough for $x = 3, 4, 5$ and 9 .
- 2) Write a single short sentence that explains what mathematical function this is calculating.