Let n be the unknown number, then:   
n+%2B+1%2Fn+=+10%2F3 Multiply both sides by n.   
n%5E2+%2B+1+=+10n%2F3 Multiply both sides by 3.   
3n%5E2+%2B+3+=+10n Subtract 10n from both sides.   
3n%5E2+-+10n+%2B+3+=+0 Solve this quadratic equation by factoring.   
%283n+-+1%29%28n+-+3%29+=+0 Apply the zero product principle.   
If 3n+-+1+=+0, then 3n+=+1, and n+=+1%2F3 or  
If n+-+3+=+0, then n+=+3   
The two numbers are: 3 and 1/3 .