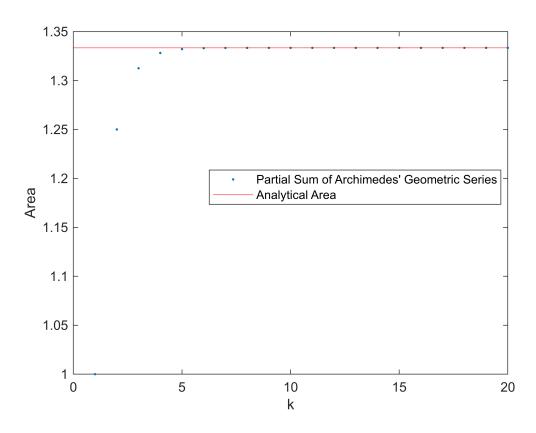
```
area_analytical = 1 / (1 - 1 / 4)
area_analytical = 1.3333
% partial_sum = (1 / 4) .^ (0:1:19)
partial_sum = (((1 / 4) .^{(1:20)}) - 1) ./ (((1 / 4) - 1))
partial\_sum = 1 \times 20
                                       1.3320
                                                1.3330
                                                         1.3333
                                                                  1.3333 · · ·
   1.0000
            1.2500
                     1.3125
                              1.3281
plot(1:20, partial_sum, ".")
hold on
yline(area_analytical, "-r")
legend("Partial Sum of Archimedes' Geometric Series", "Analytical Area")
```



legend("Position", [0.37202,0.51389,0.52143,0.082143])

xlabel("k")
ylabel("Area")