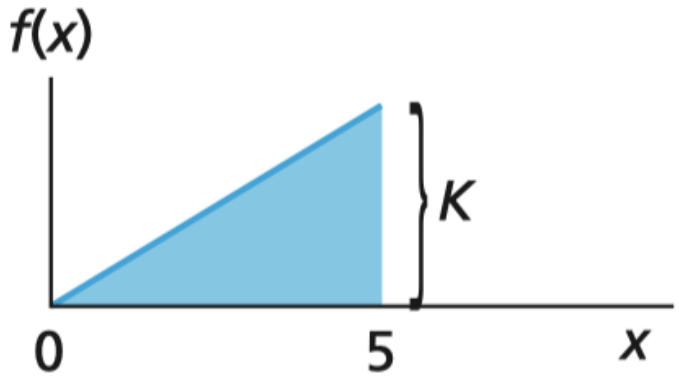
Quiz 1

Exercise 1

- Consider the figure given in the margin. Find the value k that makes the function f(x) a valid continuous probability distribution.



- K*5/2=1, so k=0.4

Exercise 2

- The time it takes a woman to travel from her apartment to the bus station follows a uniform distribution over the interval from 20 to 30 minutes. If she leaves home at 9:05 a.m., what is the probability that she will get to the station between 9:25 and 9:30 a.m.?

- c=20, d=30, f(x)=1/(30-20)=1/10, 20<x<30

$$\frac{25\,\text{min.} - 20\,\text{min.}}{10\,\text{min.}} = .5$$