```
> #Laboratory work No. 3.2
  Topic : Modeling of stochastic processes using statistical tests.
  Student of group Tee − 1 :
  Коронкевич Д.А.
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#Laboratory work No. 3.2Topic : Modeling of stochastic processes using statis
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>
> restart;
> with(plots) :
  with(Matlab) :

> #We will conduct tests for 100,250,350,400,500 ,...,10000 visitors
> RN := rand(0..100);#Random number generator in the range 0...100.
RN := proc( ) proc( ) option builtin = RandNumberInterface; end proc(6, 101, 7) end proc      (1)
> Nb := 10; #Number of blocks
                                  Nb := 10                                  (2)
> Nv := 100000; #Number of visitors
                                 Nv := 100000                               (3)
> Pp := 0; #Initial probability value
                                   Pp := 0                                  (4)
>  e := RN( );
                                   e := 92                                  (5)
> for v by 1 from 1 to Nv do
  x1[0] := 0 :
  x2[0] := 0 :
   for b by 1 from 1 to Nb do
  e := RN( ) :
  if e ≤ 25 then x1[b] := x1[b − 1] + 1 : x2[b] := x2[b − 1] : else
  if 25 < e ≤ 50 then x1[b] := x1[b − 1] − 1 : x2[b] := x2[b − 1] : else
   if 50 < e ≤ 75 then x2[b] := x2[b − 1] + 1 : x1[b] := x1[b − 1] :else
  if 75 < e ≤ 100 then x2[b] := x2[b − 1] − 1 : x1[b] := x1[b − 1] :end if:
   end if:end if:end if:

  end do:
  Xe1[v] := x1[Nb] : Xe2[v] := x2[Nb] :

  if −2 < Xe1[v] < 2 and −2 < Xe2[v] < 2 then Pp := Pp + evalf( 1/Nv ) : end if:

  end do:
>
> q := plot([[Xe1[k], Xe2[k]]$k = 1..Nv], style = point, color = black) :
  display(q);
```

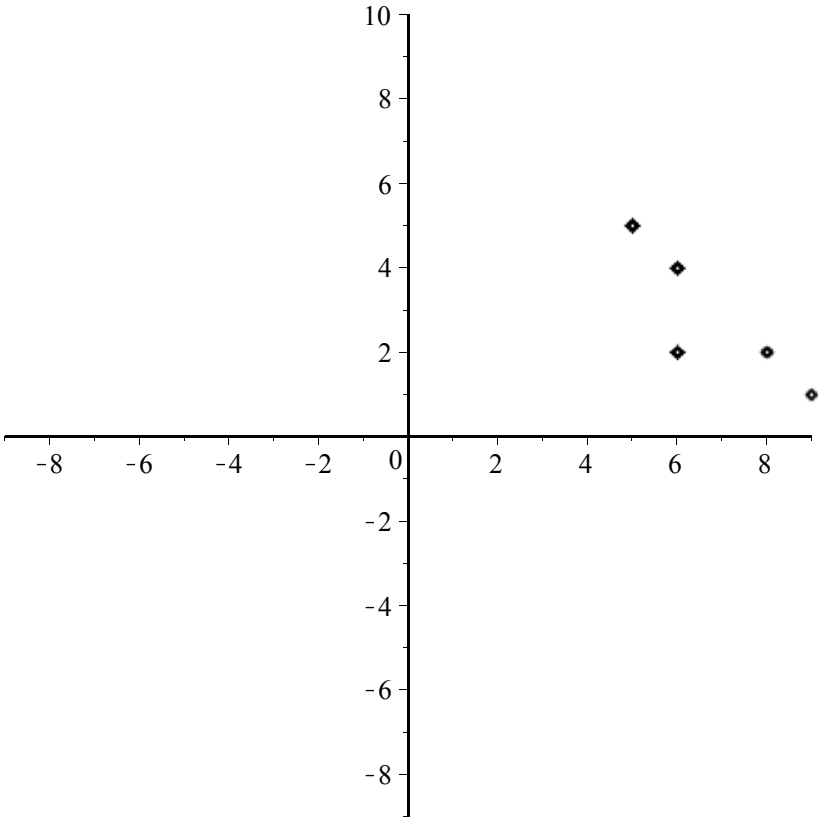

>

> *Pp*;

0.2622300000 **(6)**

>

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