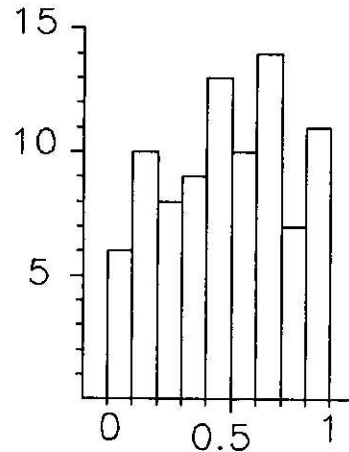


```

100 DIM B(10),RV(10,10):INPUT SEED:RVD=RND(SEED)
110 FOR I=1 TO 10
120 B(I)=0
130 FOR J=1 TO 10
140 RV(I,J)=0
150 NEXT J
160 NEXT I
170 FOR I=1 TO 10
180 FOR J=1 TO 10
190 RV(I,J)=RND:REM Random number generator test (26)RNGT51f
200 IF RV(I,J) >=.1 THEN GOTO 220
210 B(1)=B(1)+1:GOTO 390
220 IF RV(I,J) >=.2 THEN GOTO 240
230 B(2)=B(2)+1:GOTO 390
240 IF RV(I,J) >=.3 THEN GOTO 260
250 B(3)=B(3)+1:GOTO 390
260 IF RV(I,J) >=.4 THEN GOTO 280
270 B(4)=B(4)+1:GOTO 390
280 IF RV(I,J) >=.5 THEN GOTO 300
290 B(5)=B(5)+1:GOTO 390
300 IF RV(I,J) >=.6 THEN GOTO 320
310 B(6)=B(6)+1:GOTO 390
320 IF RV(I,J) >=.7 THEN GOTO 340
330 B(7)=B(7)+1:GOTO 390
340 IF RV(I,J) >=.8 THEN GOTO 360
350 B(8)=B(8)+1:GOTO 390
360 IF RV(I,J) >=.9 THEN GOTO 380
370 B(9)=B(9)+1:GOTO 390
380 B(10)=B(10)+1
390 NEXT J
400 NEXT I
410 LPRINT B(1),B(2),B(3),B(4),B(5):LPRINT B(6),B(7),B(8),B(9),B(10)
420 FOR I=1 TO 10
430 FOR J=1 TO 5
440 LPRINT RV(I,J) ":";
450 NEXT J
460 LPRINT
470 FOR J=6 TO 10
480 LPRINT RV(I,J) ":";
490 NEXT J
500 LPRINT
510 NEXT I
520 LPRINT "seed= ";SEED

```

TEST THE RNG ON YOUR COMPUTER WITH, SAY, 1000 SAMPLES AND SEE WHAT HAPPENS. ALSO ANSWER TWO QUESTIONS BELOW



100 computer generated pseudo-random numbers in the range 0 to 1 sorted into 10 equal interval "bins" Does this look like Fig. 6.2(c)? Why not? (26)RNGT51f

```

6          10          8          9          12
13         10         14         7         11
.651861 : .8688611 : .7297625 : .798853 : 7.369805E-02 :
.4903128 : .4545189 : .1072496 : .9505102 : .7038703 :
.5318641 : .9711614 : .3209329 : .9561278 : .9345151 :
.5349368 : .5644215 : .6712188 : .7025723 : .7407752 :
.6668768 : .4539406 : .3341433 : .156853 : .7362702 :
.5428795 : .425969 : 5.544812E-02 : .7682681 : .5135362 :
.564048 : .7410649 : .6618574 : .23145 : .4642614 :
.1285592 : .4849701 : 5.532474E-02 : .3629986 : .5712636 :
.9901088 : .290153 : .6577815 : .9391122 : .379971 :
.8903414 : .7978898 : .9467658 : .3230751 : .412836 :
.4249863 : .7317363 : .2193842 : .2202465 : .7637411 :
.6825126 : .7159321 : .9339718 : .2624577 : .5166851 :

```

... & 40 MORE RANDOM NORMALIZED FRACTIONS