```
10 REM
20 REM   LUNAR LANDER
30 REM   IDM
40 REM
50 RANDOMIZE TIME
60 PAPER 0:PEN 1
70 CLS
80 GOSUB 1410
90 INK 2,6:INK 3,10
100 GOSUB 820
110 GOSUB 1010
120 a$=" Get ready to start"
130 GOSUB 650
140 GOSUB 1260
150 IF height<=0 THEN GOTO 320
160 LET b$=INKEY$
170 IF b$=" " THEN burn=burn*1.6+2 ELSE burn = burn/1.5-1
180 IF burn>200 THEN burn=200
190 IF burn<0 THEN burn=0
200 IF fuel <= 0 THEN burn = 0
210 IF fuel<= burn/10 THEN burn=fuel*10
220 accn=(1.673-burn*0.259-((burn*0.0259)*(100/(fuel+50))))/10
230 k=vspeed+accn
240 height=height-((vspeed+k)/20)
250 vspeed=k
260 fuel = fuel-(burn/10)
270 IF fuel<0 THEN fuel=0
280 GOSUB 1010
290 GOSUB 1260
300 FOR i=0 TO 150:NEXT i
310 GOTO 150
320 REM
330 REM   hit ground
340 REM
350 FOR i=0 TO 5
360 SOUND 1,20,10
370 NEXT i
380 a$="  contact":GOSUB 650
390 vspeed = ABS(vspeed)
400 IF vspeed>0.5 THEN 460
410 a$=" hot shot pilot "
420 FOR i=0 TO 20
430 SOUND 1,30-i,10
440 NEXT i
450 GOTO 630
460 IF vspeed > 1 THEN 530
470 a$= " spilt the tea !!"
480 GOSUB 650
490 FOR i=0 TO 5
500 SOUND 1,20,10
510 NEXT i
520 GOTO 630
```

```
530 IF vspeed > 5 THEN 570
540 a$=" bent the chassis !!"
550 GOSUB 650
560 GOTO 630
570 REM
580 FOR i=0 TO 20
590 SOUND 1,1000+RND(13),10
600 NEXT i
610 a$=" crashed at speed "
620 GOSUB 650
630 FOR i=0 TO 1000:NEXT i
640 GOTO 60
650 REM
660 REM    print message
670 REM
680 minx=11:widex=20:maxx=minx+widex
690 y=2:PAPER 2:PEN 0
700 FOR i=1 TO widex:a$=a$+" ":NEXT i
710 SOUND 1,20,10:FOR j=1 TO 100:NEXT j:SOUND 1,20,10
720 FOR i=1 TO LEN(a$)+1
730 LOCATE MAX(maxx-i,minx),y
740 PRINT MID$(a$,MAX(i-widex,1),MIN(i,widex));
750 k=100
760 IF i<>widex THEN 780
770 k=1000:SOUND 1,20,10:FOR j=1 TO 100:NEXT j:SOUND 1,20,10
780 FOR j=1 TO k:NEXT j
790 NEXT i
800 PAPER 0:PEN 1
810 RETURN
820 REM
830 REM   instruments initialise
840 REM
850 LOCATE 15,1:PRINT "LUNAR LANDER";
860 LOCATE 1,20:PRINT "SPACE for thrust";
870 WINDOW #1,1,21,5,25
880 PAPER #1,3:CLS #1
890 PAPER 0:PEN 1
900 LOCATE 1,25:PRINT "SPACE for thrust";
910 LOCATE 1,7:PRINT "fuel";
920 LOCATE 1,11:PRINT "thrust";
930 burn = 0
940 LOCATE 10,21:PRINT "height"
950 height = INT(RND(13)*32579+16735)/100
960 LOCATE 10,14:PRINT "speed"
970 vspeed=INT((height*100)/5.0123)/100
980 fuel=INT(height*9+800+RND(13)*10)/10
990 PAPER 0:PEN 1
1000 RETURN
1010 REM
1020 REM   print current values
1030 REM
1040 LOCATE 10,7:PRINT USING "####.##";fuel;
1050 PAPER 2:LOCATE 1,8
1060 IF fuel=0 THEN 1100
1070 FOR i=1 TO INT(fuel/30)+1
1080 PRINT " ";
1090 NEXT i
1100 PAPER 3:PRINT " ";
1110 LOCATE 10,11:PAPER 0:PRINT USING "###.##";burn;
1120 LOCATE 1,12
1130 IF burn = 0 THEN 1180
1140 PAPER 2
1150 FOR i=1 TO INT(burn/10)+1
1160 PRINT " ";
1170 NEXT i
1180 PAPER 3
1190 FOR i=INT(burn/10)+2 TO 21
1200 PRINT " ";
1210 NEXT i
1220 PAPER 2:LOCATE 10,16:PRINT USING "####.##";vspeed;
1230 LOCATE 10,23:PRINT USING "###.#";height
1240 PAPER 0:PEN 1
1250 RETURN
1260 REM
1270 REM  print ship
1280 REM
1290 TAG
1300 m=240
1310 ht=height/2+63
1320 MOVE 500,ht:PRINT "  ";
1330 FOR i=0 TO 2
1340 ht=ht-16
1350 MOVE 500,ht
1360 PRINT CHR$(m+(i*2));CHR$(m+(i*2)+1);
1370 NEXT i
1380 PAPER 0:PEN 1
1390 TAGOFF
1400 RETURN
1410 REM
1420 REM   set up
1430 REM
1440 SYMBOL 240,0,0,1,2,2,6,5,4
1450 SYMBOL 241,0,128,192,32,32,48,80,144
1460 SYMBOL 242,8,22,17,16,16,12,86,83
1470 SYMBOL 243,8,52,196,4,4,12,53,229
1480 SYMBOL 244,114,82,114,82,122,71,66,0
1490 SYMBOL 245,39,37,39,37,175,113,33,0
1500 x=320:y=20:z=-1
1510 MOVE x,y
1520 x=x+ABS(RND(13)*10)
1530 y=y+z*ABS(RND(13)*10)
1540 z=-z
1550 DRAW x,y
1560 IF x<640 THEN 1520
1570 MOVE 320,0:DRAW 640,0
1580 RETURN
```