```
; How the program works:


;set up the screen.
;set up initial positions of the flakes.
;repeat until ESCAPE pressed;
;               for all flakes;
;                               erase old flake
;                               update position (ie move it down)
;                               check for obstical in the way
;                               draw new flake
;               next flake
;


wait_frame      equ &bd19
```

```
test_key        equ &bb1e
down_a_line     equ &bc26


org &8000                               ;Start Location of code

call set_screen
call set_table

.loop
        call move_all                   ;Move all the flakes.
        ld a,66:call test_key           ;Check for ESCAPE key & if pressed
        ret nz                          ;return to BASIC.
        call wait_frame                 ;Smooth out the movement.

jr loop


set_screen                              ;Draw the line at the bottom
        ld hl,&c780                     ;of the screen.
        ld b,80                         ;80 bytes in one screen line.
        ld a,255
        ssl
                ld (hl),a:inc hl        ;poke line into place
        djnz ssl
ret

.set_table                              ;Set initial positions of
        ld de,table                     ;all fifty snow flakes.
        ld b,50
        stl:
                call set_flake
        djnz stl
ret

.move_all                               ;Move all the flakes, one at
        ld de,table                     ;a time.
        ld b,50
        mal:
        call move_flake
        djnz mal
ret


.move_flake                             ;Move a single flake.
```

```
        ld a,(de):ld l,a:inc de         ;Get the screen address of the
        ld a,(de):ld h,a:dec de         ;snow flake,
        ld a,0:ld (hl),a                ;and blank it out.

        push hl
        call down_a_line                ;Move the screen address down.

        rst 4                           ;See text!
        cp 0:jr nz,hit                  ;Check for an obstical.
        pop af

        ld a,1:ld (hl),a                ;Draw a new flake, and store
        ld a,l:ld (de),a:inc de         ;its new screen address.
        ld a,h:ld (de),a:inc de
ret

.hit
        pop hl:ld a,255                 ;Draw a splatted flake
        ;ld (hl),a                      ;See text!
jr set_flake


.set_flake                              ;Create a random start for the
        call random                     ;snow flake.
        ld a,l                          ;This is LSB of screen address.
        ld (de),a:inc de
        ld a,&c0                        ;This is MSB of screen address.
        ld (de),a:inc de
ret

.random                                 ;The Magic random number generator.

push af:push bc:push de:ld bc,(seed):ld hl,(seed)
sla l:rl h:add hl,bc:ld b,h:ld c,l:sla l:rl h
ld d,l:sla l:rl h:sla l:rl h:add hl,bc:ld b,h
ld c,l:ld h,d:ld l,&29:or a:sbc hl,bc:ld (seed),hl
pop de:pop bc:pop af:ret:seed dw 0



.table                                  ;Somewhere to store all the screen
ds 100                                  ;addresses of the flakes.


list:end
```