

67 LABYRINTH

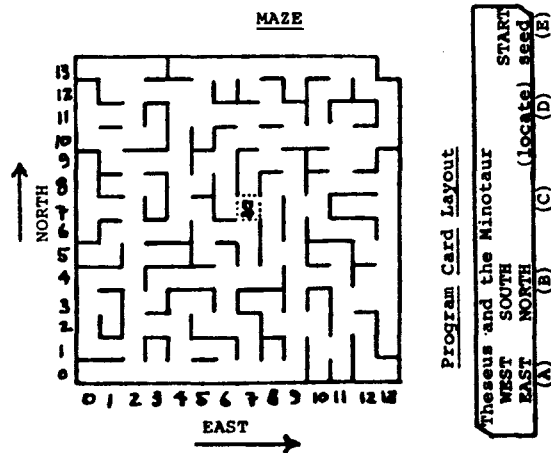
This 2D maze adventure game takes place in the Labyrinth of King Minos in Crete. The Labyrinth was designed by Daedalus as a place of confinement for the Minotaur: the half bull, half human offspring of Minos' wife Pasiphaë and a bull given to Minos by Poseidon. Theseus, son of Aegeus, was one of seven maidens and seven youths put into the Labyrinth to be devoured by the Minotaur as part of a regular (9 year) tribute to Minos. Legend has it that Theseus killed the Minotaur with his bare hands, and found his escape from the Labyrinth with the aid of a thread that marked his way in. In this HP67 version of Theseus and the Minotaur (T&M), physical violence is hopefully avoided, and Theseus need only escape. Although no thread is available, a map is. Theseus (LOST BOY.) and the Minotaur (BEaST.) begin at random locations in the maze shown below (but not on the NE/SW diagonal or in the same row or column as the other). A random number generator

cues moves, but only the Minotaur is allowed data on his and the boy's location from the calculator. Thus Theseus must locate himself by trial and error, and reach the escape square "S" before the Beast reaches him. One growl means the Beast is on a square touching corners with that the boy is in. Two growls means that the Beast is in a square touching sides with that the boy is in. Note: On average, Theseus moves 7/13 (54%) of the time, and the Minotaur moves 6/13 (46%) of the time.

Minotaur has entered the square Theseus is in ("TOO Bad."). Note: the Minotaur is not able to enter the safety square "S".

6. Optional at any time (for Beast's eyes only) - Display location coordinates (E,N) for each player. Push key **[D]** three times. Output: Player, #East, #North, Other Player, #East, #North.

(all flags clear) T&M Program Steps (deg mode, fix 0)									
*LBLA 312511	3 03	x ² 3254	STO1 3301						
CF2 356102	0 00	+ 61	7 GSB7 312207						
4 04	x 71	x=0? 3151	x=y? 3251						
9 09	- 51	GTO5 2205	GTOe 223115						
5 05	+ 41	x≤y? 3271	STO2 3302						
GTO0 2200	+ 41	GSB6 312206	GSB7 312207						
*LBLB 312512	2 02	1 01	x=y? 3251						
SF2 355102	x/y 3552	2 x=y? 3251	GTOe 223115						
3 03	y/x 3563	GSB6 312206	STO4 3304						
1 00	RCL1 3424	GSB7 312207	GSB7 312207						
0 00	x/y 3552	7 07	x=y? 3251						
*LBL0 312500	+ 81	- 51	8 GTOe 223115						
RCL1 3401	FRAC 3283	x<0? 3171	STO3 3303						
+ 61	7	GTO9 2209	STO4 3304						
RCL2 3402	5 05	RCL6 3406	x=y? 3251						
CF0 356100	x≤y? 3271	F71 357101	GTOe 223115						
GTO0 2200	GTO8 2208	RTN 3522	GTO9 2209						
*LBLA 322511	1 01	3 GSB3 312203	*LBL7 312507						
CF2 356102	STOI 3533	SF1 355101	RCL0 3400						
2 SF0 355100	F72 357102	RCL6 3406	TAN ⁻¹ 3264						
4 04	ISZ 3134	RTN 3522	FRAC 3283						
9 09	F70 357100	*LBL9 312509	9 STOI 3300						
5 05	CHS 42	F71 357101	1 01						
RCL1 3401	BSTOI 336124	GSB3 312203	4 04						
x=0? 3151	7 07	CF1 356101	x 71						
GTO8 2208	RCL1 3401	RCL7 3407	INT 3183						
1 01	x/y? 3261	RTN 3522	RTN 3522						
- 51	GTO1 2201	*LBL3 312503	*LBLD 312514						
+ 61	CLX 44	RCL1 3401	R/S 84						
3 RCL2 3402	RCL2 3402	RCL3 3403	*LBLD 312514						
GTO0 2200	x/y? 3261	STOI 3301	R/S 84						
*LBLB 322512	GTO1 2201	R+ 3553	0 *LBLD 312514						
SF2 355102	F71 357101	STOI 3303	STOI 3533						
SF0 355100	9 GTO0 2200	RCL2 3402	RCL7 3407						
3 03	RCL9 3409	RCL4 3404	F71 357101						
0 00	RTN 3522	STOI 3302	RCL6 3406						
0 00	*LBL0 312500	R+ 3553	PAUSE 3572						
RCL1 3401	R+ 3553	5 STOI 3304	RCL1 3401						
+ 61	R+ 3553	RTN 3522	PAUSE 3572						
4 RCL2 3402	STOI 335124	*LBL5 312505	RCL2 3402						
x=0? 3151	*LBL8 312508	RCL8 3408	PAUSE 3572						
GTO8 2208	RCLD 3414	RTN 3522	1 RCL6 3406						
1 01	PAUSE 3572	*LBL6 312506	F71 357101						
- 51	0 GTO4 2204	RCL5 3405	RCL7 3407						
*LBL0 312500	*LBL1 312501	PRTX 3184	PAUSE 3572						
1 01	RCL5 3415	R+ 3553	RCL3 3403						
4 04	PAUSE 3572	RTN 3522	PAUSE 3572						
x 71	*LBL4 312504	6 *LBL2 312515	RCL4 3404						
+ 61	2 02	π 3573	PAUSE 3572						
5 + 41	RCL3 3403	SIN 3162	RCL1 3534						
+ 41	RCL1 3401	STOI 3300	RTN 3522						
3 03	- 51	*LBL2 312502							
0 00	x ² 3254	GSB7 312207							
+ 81	1 RCL4 3404	GTO2 2202							
INT 3183	RCL2 3402	*LBL2 322515							
STOI 3533	- 51	GSB7 312207							



T&M Data Card

0:seed 5:"9rrr." s0: 2969617.5 s5:171103826.0
 1:E(i) 6:"BEaST." s1:372085265.0 s6:192954367.0
 2:N(i) 7:"LOST BOY." s2: 85504673.5 s7:189349617.0
 3:E(j) 8:"TOO Bad." s3: 21762352.5 s8:312742518.5
 4:N(j) 9:"BYE BEaST." s4:169137578.5 s9:187929003.0
 A:85506661.0 B:405930892.5 C:269004167.0
 D:"SORRY BOSS." E:"90 BOSS 90."

Note: Numerical analogs can be substituted for the cues in R5-9, D & E by those who aren't ready to construct the pseudoalpha cues suggested above.

Registers s0-s9, A-C store information on the walls and passages in the maze in the form of "Jake's Flags" (V4N1P18). The structure is constructed by setting up a 1:1 correspondence between flags available (30 per register) and possible partitions in the structure, clearing all flags, and then "erecting" the partitions desired by setting the corresponding flags. Other ideas that fit into HP67 memories: a 5x5x5 (3D) maze adventure entitled *Orphans of the Sky* after the sci fi novel by R. Heinlein, a 3x3x3x3 (4D) maze entitled *Time Tunnel*, or a 2x2x2x2x2 (6D) maze for those who would like to be lost in a higher dimension. Happy Hunting. PBF (1025)

R/S

BOWLING SCORE KEEPER

BOWLING SCORE KEEPER (1 person)

INSTRUCTIONS:

- Load Program. f CL REG, key 10, STO 9.
- Enter each frame as: 1st ball, ENTER, 2nd ball. For first frame, GSB 1. For each subsequent frame, R/S.

Note: Always enter two balls. For a Strike key 10, ENTER, 0.

- Output is one of three formats;
 - FIX 3 for a completed frame.
 - SCI 3 for an incomplete spare.
 - SCI 5 for an incomplete strike.
- Remember that if the 29C is turned off it returns to top of memory when turned back on. If turned off after a completed frame, GSB 1 on the next frame. If turned off after an incomplete frame the program has halted somewhere in the middle of memory and must continue from that point. Switch to PRGM and note the step in X. When resuming, key GTO .nn, enter ball 1 and 2, R/S.

Happy Bowling. Fred J. Hayden (2296)

Instructions Input Keys Output

- Load program card (2 sides).
 - Load data card (2 sides).
 - Choose a random seed: wait... **[R/S]**
 - Initialize locations of Theseus and Minotaur: **[F10]** LOST BOY.
 - Move when cued (Beast or Boy) by choosing a direction key to push as follows: **[D]**-East, **[A]**-West, **[B]**-North, or **[C]**-South.
- Note: Minotaur is allowed to "hide" his move from Theseus. Response is "GO BOSS GO" if the adjacent sector can be accessed in the direction chosen, "SORRY BOSS" if not.

Next, a "Grrr." cue occurs twice for adjacent squares and once for diagonally adjacent squares when the Beast is close by. If the Minotaur square does not touch Theseus' square at all, no "Grrr." cue is displayed. Finally, the cue ("LOST BOY." or "BEaST.") for the next player chosen to move is displayed. This is done unless Theseus has reached safety ("BYE BEaST.") or the