

Inside the Event Horizon

HP-25 Program Form

Title Photon on $[r, \phi]$ -slice Page of

Switch to PRGM mode, press **[F]** **PRGM**, then key in the program.

DISPLAY		KEY ENTRY	X	Y	Z	T	COMMENTS	REGISTERS
LINE	CODE							
00								$R_0 \ x = 1.5$
01	02	2						$R_1 \ \phi = 0$
02	24 00	RCL 0						$R_2 \ \Delta x = -0.1$
03	71	\div	$2/x$					$R_3 \ i = 0$
04	01	1						
05	41	=						
06	14 02	$\sqrt{\quad}$	$\sqrt{2/x-1}$					
07	24 00	RCL 0						
08	61	X						
09	15 22	g YX	$x \sqrt{\quad}$					
10	24 02	RCL 2						
11	61	X						
12	32	CHS	$-\Delta x$					
13	23 51 01	STO+1	$x \sqrt{\quad}$				Accumulated ϕ	
14	24 03	RCL 3						
15	14 74	FAUSE					Display i	
16	24 01	RCL 1	ϕ in radians					
17	01	1						
18	08	8						
19	00	0						
20	61	X						
21	15 73	g π						
22	\div	\div	ϕ in degrees					
23	74	R/S					Display ϕ in degrees	
24	01	1						
25	23 51 03	STO+3					New i	
26	24 02	RCL 2	Δx					
27	23 51 00	STO+0					New x	
28	13 01	GTO 01						
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HP-25
Calculator
solution
of
Assignment
Problem

The initial
values to
key in

- 0 6.6
- 1 12.9
- 2 18.9
- 3 24.7
- 4 30.5
- 5 36.2
- 6 42.0
- 7 47.8
- 8 53.8
- 9 60.1
- 10 66.7
- 11 73.9
- 12 81.9
- 13 91.4
- 14 104.6