

HP-41C Extended Precision PI Program by Gerard Kruse
PPC Calculator Journal Vol 9 No 4 Pg 14 May-Jul 1982
Original program by Ron Knapp from PPC V7 No 5 Pg 10

```
01 LBL "PI"      ;Extended Precision PI Program
02 CLRG
03 FIX 00
04 ABS
05 1
06 -
07 ENTER
08 ENTER
09 10
10 MOD
11 10
12 -
13 CHS
14 +
15 " PI "
16 ARCL X
17 AVIEW
18 .2
19 *
20 6
21 +
22 XROM 25,30 ;PSIZE - From Extended Functions Module
23 4
24 +
25 2
26 /
27 STO 02
28 1.07
29 *
30 5
31 -
32 RND
33 4
34 *
35 1
36 -
37 4 E-5
38 +
39 STO 01
40 LBL 00
41 RCL 01
42 INT
43 ENTER
44 ENTER
45 ENTER
46 4.3
47 /
48 INT
49 1
50 X>Y?
51 X<>Y
52 RDN
53 CHS
54 RCL 02
55 +
56 E3
57 /
58 4
59 +
60 STO 00
61 STO 03
62 RDN
63 239
64 X^2
65 *
66 X<>Y
```

```
67 2
68 -
69 ST* Z
70 -
71 0
72 X<>Y
73 4
74 *
75 XEQ 03
76 239
77 X^2
78 X^2
79 ENTER
80 ENTER
81 RCL 03
82 STO 00
83 CLX
84 DSE 01
85 GTO 04
86 X<>Y
87 239
88 /
89 X<>Y
90 XEQ 06
91 GTO 08
92 LBL 04
93 XEQ 06
94 GTO 00
95 LBL 02
96 E5
97 *
98 ENTER
99 R^
100 ST/ Z
101 MOD
102 X<>Y
103 INT
104 E5
105 ST* Z
106 *
107 X<>Y
108 LBL 03
109 ENTER
110 R^
111 ST/ Z
112 MOD
113 LASTX
114 X<>Y
115 R^
116 R^
117 INT
118 +
119 E10
120 -
121 RCL IND 00
122 +
123 X<0?
124 GTO 04
125 1
126 ST- 00
127 ST+ IND 00
128 ST+ 00
129 CLX
130 +
131 GTO 05
132 LBL 04
133 E10
134 +
135 LBL 05
136 STO IND 00
```

```

137 CLX
138 +
139 ISG 00
140 GTO 02
141 RTN
142 LBL 06
143 E5
144 *
145 ENTER
146 R^
147 ST/ Z
148 MOD
149 X<>Y
150 INT
151 E5
152 X>Y?
153 GTO 07
154 /
155 INT
156 1
157 ST- 00
158 X<>Y
159 ST+ IND 00
160 RDN
161 ST+ 00
162 CLX
163 LASTX
164 FRC
165 E5
166 *
167 LASTX
168 LBL 07
169 *
170 X<> IND 00
171 LASTX
172 /
173 INT
174 ST+ Y
175 X<> L
176 FRC
177 X<>Y
178 E5 ;Modified, was 1 E5
179 ST* Z
180 *
181 ENTER
182 R^
183 ST/ Z
184 MOD
185 LASTX
186 RDN
187 X<>Y
188 INT
189 ST+ IND 00
190 CLX
191 +
192 +
193 ISG 00
194 GTO 06
195 RTN
196 LBL 08
197 RCL 02
198 RCL 03
199 INT
200 -
201 ST+ 02
202 1.2
203 *
204 .9
205 -
206 RND

```

207 12
208 *
209 1
210 -
211 6 E-5
212 +
213 STO 01
214 LBL 09
215 RCL 01
216 INT
217 ENTER
218 14.3
219 /
220 INT
221 1
222 X>Y?
223 X<>Y
224 RDN
225 CHS
226 RCL 02
227 +
228 LASTX
229 2
230 ST/ Y
231 +
232 X<>Y
233 E3
234 /
235 +
236 STO 00
237 STO 03
238 SF 00
239 LBL 10
240 RCL 01
241 INT
242 ENTER
243 ENTER
244 ENTER
245 2
246 -
247 ST* Z
248 25
249 ST* Z
250 X<>Y
251 *
252 2
253 ST- L
254 CLX
255 LASTX
256 ST* T
257 ST- Y
258 RDN
259 *
260 R^
261 ST+ T
262 X^2
263 R^
264 +
265 +
266 FS? 00
267 GTO 04
268 5 E6
269 *
270 .75
271 GTO 05
272 LBL 04
273 DSE 01
274 40
275 *
276 6

277 LBL 05
278 ST/ Z
279 CLX
280 X<>Y
281 XEQ 12
282 RCL 03
283 STO 00
284 FS?C 00
285 GTO 10
286 125
287 X^2
288 X^2
289 ENTER
290 ENTER
291 0
292 DSE 01
293 GTO 07
294 3
295 ST* Z
296 ST* T
297 RDN
298 XEQ 06
299 GTO 13
300 LBL 07
301 XEQ 06
302 GTO 09
303 LBL 11
304 ENTER
305 R^
306 ST/ Z
307 MOD
308 X<>Y
309 INT
310 X<>Y
311 E5
312 ST* Z
313 *
314 LBL 12
315 ENTER
316 R^
317 ST/ Z
318 MOD
319 X<>Y
320 LASTX
321 RDN
322 INT
323 ST+ Z
324 CLX
325 +
326 E5
327 *
328 X<>Y
329 RCL IND 00
330 -
331 X<0?
332 X>0?
333 GTO 04
334 1
335 ST- 00
336 ST- IND 00
337 ST+ 00
338 CLX
339 E10
340 +
341 LBL 04
342 STO IND 00
343 RDN
344 ISG 00
345 GTO 11
346 RTN

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347 LBL 13
348 RCL 03
349 FRC
350 LASTX
351 INT
352 1
353 -
354 STO 00
355 E3
356 ST* Z
357 /
358 STO 01
359 +
360 STO 03
361 CLX
362 LBL 14
363 RCL IND 03
364 X<>Y
365 -
366 RCL IND 00
367 -
368 0
369 X<>Y
370 X<0?
371 X>0?
372 GTO 05
373 E10
374 +
375 1
376 X<>Y
377 LBL 05
378 STO IND 00
379 RDN
380 DSE 00
381 DSE 03
382 GTO 14
383 TONE P
384 FC? 55
385 OFF
386 LBL 01
387 ADV
388 " " ;1 space
389 RCL 01
390 4
391 +
392 STO 00
393 ARCL IND 00
394 >". " ;Append 1 period
395 AVIEW
396 PSE
397 ISG 00
398 LBL 15
399 " " ;1 space
400 RCL IND 00
401 E5
402 /
403 INT
404 XEQ 16
405 ARCL X
406 >" " ;Append 1 space
407 RCL IND 00
408 E5
409 /
410 FRC
411 E5
412 *
413 XEQ 16
414 ARCL X
415 AVIEW
416 FC? 55

```

```

417 PSE
418 ISG 00
419 GTO 15
420 TONE P
421 TONE P
422 ADV
423 ADV
424 CLX
425 CLA
426 CLD
427 RTN
428 GTO 01
429 LBL 16
430 E4
431 X<>Y
432 X>Y?
433 RTN
434 >"0"          ;Append number 0
435 E3
436 X<>Y
437 X>Y?
438 RTN
439 >"0"          ;Append number 0
440 E2
441 X<>Y
442 X>Y?
443 RTN
444 >"0"          ;Append number 0
445 E1            ;Modified, was E
446 X<>Y
447 X>Y?
448 RTN
449 >"0"          ;Append number 0
450 END

```

```

0284C000F30050498A9C00611141838311104B1110415440F4
205049209B737E1A12421640A65E1440124332111A10174215
416E14421141141B1C154031012168838383141A1343681145
71755422401B13431440303375121319514271124194714110
711442E00003121319515183832330779701B5007112131943
71E00006B90005E00006B100031B1542837495714B71681B15
9471427104837495714B7671747468401B11104190804066B5
00119300928092007740B600051B11104006918077409600B3
0085071B1542837495714B71681B1545B80043681193007192
807592007776691B1542760842CE807643689272CE7469711B
15947142837495714B7675716892807740409600B700850922
2368419202111A12421A19416E1112421141161B1C1540310A
21688311141A134368114571755422407612957240711B1343
403033A8000B21688383831241947112159471714212937477
7694709372754274927051744040AC00B500151B16421A1715
B600059701141042160695717771E0000C2330AA00BB001112
1551518383109701B800139471947075E00006BE0008E00006
BA000C837495714B7168711B159471420D837495714B717675
68927177401B1542719080416664B50011930093809200771B
111040059180759600BC00850E236976681141301B13947143
314033770F9083714190804110716664B6001B111040117106
91807597009703BF009F78AD378D028FF120211440309B80F2
7F2E7E899600CF0FF12090801B154368E000109B73F27F2090
801B1543691B1542E000109B737EAD37899600D0000F9F789F
788F8F77877F85B200CF101B14714585F27F301B13714585F2
7F301B12714585F27F301B11714585F27F30C0000D2E

```

644 BYTES

HP-41C Extended Precision PI by Gerard Kruse PPC V9 N4 P14 May-Jul 1982

Program Registers Needed: 92

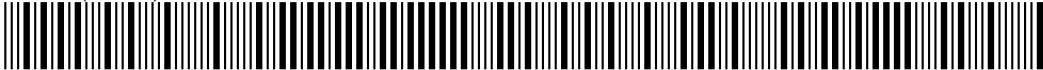
Row 1 (1 - 7)



Row 2 (8 - 15)



Row 3 (15 - 24)



Row 4 (25 - 34)



Row 5 (35 - 44)



Row 6 (45 - 55)



Row 7 (56 - 65)



Row 8 (66 - 75)



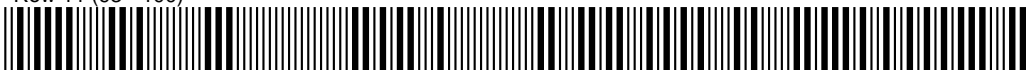
Row 9 (76 - 85)



Row 10 (85 - 92)



Row 11 (93 - 100)



Row 12 (101 - 111)



Row 13 (111 - 121)



Row 14 (121 - 129)



Row 15 (130 - 138)



Row 16 (139 - 147)



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Row 17 (148 - 157)



Row 18 (158 - 167)



Row 19 (168 - 177)



Row 20 (178 - 187)



Row 21 (188 - 197)



Row 22 (198 - 206)



Row 23 (207 - 215)



Row 24 (216 - 225)



Row 25 (226 - 236)



Row 26 (237 - 247)



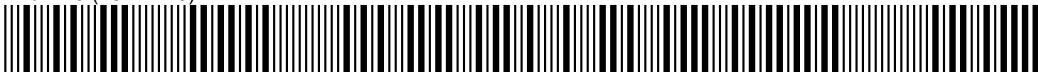
Row 27 (248 - 256)



Row 28 (257 - 266)



Row 29 (267 - 273)



Row 30 (273 - 281)



Row 31 (282 - 290)



Row 32 (291 - 298)



Row 33 (298 - 306)



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Row 34 (306 - 316)



Row 35 (317 - 326)



Row 36 (327 - 336)



Row 37 (336 - 344)



Row 38 (344 - 355)



Row 39 (355 - 365)



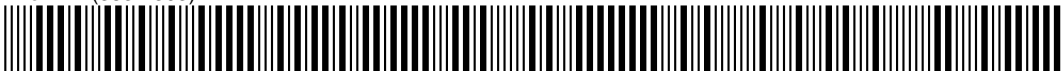
Row 40 (366 - 374)



Row 41 (375 - 383)



Row 42 (383 - 393)



Row 43 (393 - 400)



Row 44 (400 - 406)



Row 45 (407 - 414)



Row 46 (414 - 421)



Row 47 (421 - 430)



Row 48 (431 - 439)



Row 49 (439 - 447)



Row 50 (448 - 450)

