Programmable TI58/59 Specialty Pakettes

Astrology

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THE TI-59 PAKETTE STORY

Since the early days of handheld programmable calculators, Texas Instruments (TI) has been deeply involved in supplying not only calculators with exceptional power but also programs (software) to match. Many experts were put to work within their special fields of endeavor to design quality Software Libraries for TI calculator users. Among the Libraries produced by TI for the TI-59 are:

- Statistics
- Real Estate and Investment
- Surveying
- Navigation
- Aviation
- Leisure
- Business Decisions
- Securities Analysis

Fully recognizing TI-59 users may require programs other than those included in TI-59 Libraries, a second program source was developed. This source, the Professional Program Exchange, gathers, compiles and redistributes programs **written by TI-59 users** who defined their own specific program needs and filled these needs by writing programs. These programs, now in Pakettes, add a new dimension to the software made available to TI-59 user. Combining some of the best TI originated programs with the most popular programs found in the Professional Program Exchange, Program Pakettes offer a true software value. Current TI Pakette offerings include:

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- Securities
- Statistical Testing
- Civil Engineering
- Electronic Engineering
- Blackbody
- Oil/Gas/Energy
- Printer Utility
- Astrology
- Programming Aids
- 59 Fun
- 3-D Graphics
- Fluid Dynamics
- Mathematics
- Lab Chemistry
- Production Planning
- Marketing/Sales

Table of Contents

ASTRO I - INTERPOLATION AND MIDPOINTS	978001A
ASTRO II - ASPECTS, INDIVIDUAL AND MUTUAL	978002A
ASTRO III - INTERPOLATION FACTORS	978003A
PLACIDUS HOUSES	978004A
ASTROLOGY - BIRTHCHART & PRIMARY DIRECTIONS	978005A
ASTROPOINTS - SOLSTICE/ARABIAN PARTS	978006A

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9,7 8,0 0,1
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PPX-59
professional program exchange

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Submission Abstract

Program Title	Rev.
ASTRO I - INTERPOLATION AND MIDPOINTS	

Abstract of Program

Can be used to interpolate between 2 points in the zodiac based upon an interpolation factor F.

User Benefits:

Saves time in Astrological research.

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Category Name	Required Progs.	Prog. Steps	Card Sides	PC-100A Needed / Library Module ID
Astrology		196	1	☐ / ☐

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Submission Checklist

- ☒ Recorded Magnetic Cards
- ☒ Submission Abstract
- ☒ Program Description
- ☒ User Instructions
- ☒ Sample Problem
- ☒ Listing
- ☐ _____
- ☐ _____

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Program Description

Program Title: ASTRO I - INTERPOLATION AND MIDPOINTS

Rev.

Method, Equations, Sketches, Limitations, References, Error Recovery:

This program can be used to interpolate between two points in the zodiac based upon an interpolation factor F. F is entered once for each set of interpolations. In typical use, two planet positions from an ephemeris are entered in zodiac notation, and a third interpolated position based upon F is computed and displayed. Internal to the program, zodiac notation is converted by subroutine to Right Ascension Notation for computation. Computation results are converted by subroutine back to Zodiac Notation for display. A factor F = 0.5 permits midpoint computations. Program, "ASTRO III - Interpolation Factors", may be used for computing F.

Equations

$0 < F < 1$	Interpolation Factor
z_1 = SS.DDMM	First Entry Point
z_2 = SS.DDMM	Second Entry Point

$z_1 = z_1 + F \times (z_2 - z_1)$ Equation

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Notation. In zodiac notation, "SS" is the sign of the zodiac. For Aires, SS = 1; for Taurus, SS = 2; etc. "DD" is degrees, "MM" is minutes. For example -

6)(45 corresponds to 12.0645

Internal to the program, Right Ascension Notation is used. For example:

6)(45 corresponds to 336°75', display as 336.75

Data Entry Notes. For planet motion, enter the earliest (in time) entry first. Retrograde motion is taken care of in the interpolation equation. For midpoints, planet positions may be entered in either order. The program will operate on the TI-59 "stand-alone", without the PC-100A.

☐ See Continuation Sheet

9 7 8 0 0 1

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User Instructions

Program Title ASTRO I

Z1	Z 2	F		

Partition (OP 17): 479.59 *

Parenthesis Levels: 1

t Register ☐

Angular Mode (if applicable):

SBR Levels:

Absolute Addresses ☐

Library Module ID:

*for TI-58 239.29

Disturbs Pending Operations ☒

LABELS (Op 08)

INV	lnx	CE	CLR	x:t	x²
√x	1/x	STO	RCL	SUM	y^x
EE	(	)	÷	GTO	X
SBR	−	RST	+	R/S	•
+/−	=	CLR	INV	log	CP
tan	Pgm	P→R	sin	cos	CMs
Exc	Prd	|x|	Eng	Fix	Int
Deg	Pause	x=t	Nop	Op	Rad
Lbl	x≥t	Σ+	x̄	Grad	St flg
If flg X	DMS X	π X	List	Write	Dsz
Adv	Prt				

USER DEFINED KEYS

A	Enter Z_1
B	Enter Z_2
C	Enter F
D	
E	
A'	Separate Int.
B'	Zod./RT Ascension
C'	Rt. Ascension/Zod.
D'	
E'	

FLAGS	0	1	2	3	4	5	6	7	8	9

STEP	PROCEDURE	ENTER	PRESS	OUTPUT/MODE (see legend below)
	I. To Interpolate			
1.	Enter Program			
2.	Enter Interpolation Factor F	F	C	F
3.	Enter First Point z_1	SS.DDMM	A	Print z_1* Disp. z_1 in Rt. Ascension
4.	Enter Second Point z_2	SS.DDMM	B	Print z_2* Disp. and Print z_1* in Zodiac Notation
5.	For additional interpolation from same F, repeat from Step 3.			
	II. For Midpoints, use the same procedure as above with F = 0.5 z_1 is preserved and may be used with new z_2's by repeating from Step 4.			

Modes: (n)•—Printed only (n)—Displayed Briefly (Pause)
n•—Printed and displayed

DATA REGISTERS (INV lnx)

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
0	
1	
2	
13	F
14	Z_1
15	Z_2
16	Working
17	"
18	"
19	"

☐ See Continuation Sheet

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Sample Problem

Statement of Example

Given that Gerald Ford was born on 7-14-1913 at 12:43 A.M., interpolation factor F is derived, and Ford's planetary positions and midpoints are computed. 12:43 A.M. CST implies 6:43 A.M. GMT. For noon/noon ephemerides, 12 hours are added. For Pluto, month/month interpolation is performed.

☐ See Continuation Sheet

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ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
I. With ASTRO I in the TI-59, get the Interpolation Factor F.			
18.43	2nd D.Ms	18.71666667	
	÷ 24 =	0.7798611111	F
	C	0.7798611111	F Entered
II. Interpolate Sun - Neptune from Ephemerides			
4.2027	A	(4.2027)*	Print, 20 ♋ 27
		110.45	Disp. Rt. Ascension
4.2125	B	(4.2125)*	Print, 21 ♋ 25
		4.2112*	Disp. & Print 21 ♋ 12 Radical Sun Pos'n
8.2332	A	(8.2332)*	Print, 23♏ 32
		233.5333333	
9.0651	B	(9.0651)*	
		9.0355*	3 ♐ 55 Radical Moon
Continue through Neptune. For Pluto:			
14	÷ 31 =	0.4516	F
	C	0.4516	F Entered
3.2945	A	(3.2945)*	
		89.75	
4.0026	B	(4.0026)*	0 ♋ 03 Radical Pluto
		4.0003*	

Modes: (n)* —Printed only (n)—Displayed Briefly (Pause)
n* —Printed and displayed

☐ Over

Sample Problem (cont'd)

ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
III. For G. Ford's Midpoints			
	5	0.5	F
	C	0.5000	Enter F
4.2112	A	(4.2112)*	Radical Sun
		111.2	Display
9.0355	B	(9.0355)*	Radical Moon
		6.2733*	27 ♈ 33 = ☉ / ☽
5.1608	B	(5.1608)*	
		5.0340*	3 ♌ 40 = ☉ / ☿
Continue through Pluto, then for Moon:			
9.0355	A	(9.0355)*	Radical Moon
		243.9166667	
5.1608	B	(5.1608)*	Radical Mercury
		7.1001*	10 ♏ 01 = ☽ / ☿
Continue through Pluto, then Mercury through Pluto, Venus through Pluto, etc., for all combinations.			

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Modes: (n)* —Printed only (n)—Displayed Briefly (Pause)
n*—Printed and displayed

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9 7 8 0 0 1
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LOC	CODE	KEY	COMMENTS
000	76	LBL	
001	16	A'	
002	53	(	
003	24	CE	
004	75	-	
005	93	.	
006	05	5	
007	54	)	
008	58	FIX	
009	00	00	
010	52	EE	
011	22	INV	
012	52	EE	
013	58	FIX	
014	09	09	
015	92	RTN	
016	76	LBL	
017	17	B'	
018	75	-	
019	16	A'	
020	42	STO	
021	16	16	
022	95	=	
023	48	EXC	
024	16	16	
025	75	-	
026	01	1	
027	95	=	
028	65	×	
029	03	3	
030	00	0	
031	95	=	
032	42	STO	
033	17	17	
034	43	RCL	
035	16	16	
036	65	×	
037	02	2	
038	22	INV	
039	28	LOG	
040	75	-	
041	16	A'	
042	44	SUM	
043	17	17	
044	95	=	
045	44	SUM	
046	17	17	
047	43	RCL	
048	17	17	
049	88	DMS	
050	92	RTN	
051	76	LBL	
052	18	C'	
053	75	-	
054	16	A'	

LOC	CODE	KEY	COMMENTS
055	42	STO	
056	17	17	
057	95	=	
058	42	STO	
059	18	18	
060	43	RCL	
061	17	17	
062	55	÷	
063	03	3	
064	00	0	
065	95	=	
066	16	A'	
067	42	STO	
068	19	19	
069	65	×	
070	03	3	
071	00	0	
072	95	=	
073	94	+/-	
074	44	SUM	
075	17	17	
076	43	RCL	
077	18	18	
078	85	+	
079	43	RCL	
080	17	17	
081	95	=	
082	22	INV	
083	88	DMS	
084	55	÷	
085	01	1	
086	00	0	
087	00	0	
088	95	=	
089	44	SUM	
090	19	19	
091	43	RCL	
092	19	19	
093	85	+	
094	01	1	
095	95	=	
096	92	RTN	
097	76	LBL	
098	11	A	
099	99	PRT	
100	17	B'	
101	42	STO	
102	14	14	
103	92	RTN	
104	76	LBL	
105	12	B	
106	99	PRT	
107	17	B'	
108	42	STO	
109	15	15	

LOC	CODE	KEY	COMMENTS
110	75	-	
111	02	2	
112	07	7	
113	00	0	
114	95	=	
115	22	INV	
116	77	GE	
117	87	IFF	
118	43	RCL	
119	14	14	
120	75	-	
121	09	9	
122	00	0	
123	95	=	
124	77	GE	
125	87	IFF	
126	03	3	
127	06	6	
128	00	0	
129	44	SUM	
130	14	14	
131	61	GTO	
132	88	DMS	
133	76	LBL	
134	87	IFF	
135	43	RCL	
136	14	14	
137	75	-	
138	02	2	
139	07	7	
140	00	0	
141	95	=	
142	22	INV	
143	77	GE	
144	88	DMS	
145	43	RCL	
146	15	15	
147	75	-	
148	09	9	
149	00	0	
150	95	=	
151	77	GE	
152	88	DMS	
153	03	3	
154	06	6	
155	00	0	
156	44	SUM	
157	15	15	
158	76	LBL	
159	88	DMS	

MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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9 7 8 0 0 1
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LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS
160	43	RCL									
161	15	15									
162	75	-									
163	43	RCL									
164	14	14									
165	95	=									
166	65	×									
167	43	RCL									
168	13	13									
169	85	+									
170	43	RCL									
171	14	14									
172	75	-									
173	03	3									
174	06	6									
175	00	0									
176	95	=									
177	77	GE									
178	89	π									
179	85	+									
180	03	3									
181	06	6									
182	00	0									
183	76	LBL									
184	89	π									
185	18	C'									
186	58	FIX									
187	04	04									
188	99	PRT									
189	98	ADV									
190	91	R/S									
191	76	LBL									
192	13	C									
193	42	STO									
194	13	13									
195	92	RTN									

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MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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9	7	8	0	0	2

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PPX-59
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Submission Abstract

Program Title	Rev.
ASTRO II - ASPECTS, INDIVIDUAL AND MUTUAL	

Abstract of Program

This program permits the entry of 12 palentary positions from an individual's birth chart, computes the array of planetary aspects, and displays (and with the print cradle, prints) aspects in degrees and minutes. The 12 position entries may be made from the keyboard in zodiac notation, or may be read in from a magnetic card "Client File". Two charts may also be compared for mutual aspects.

Original SR-52 Program by Richard Houghton of Dallas, Texas

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User Benefits:

Speeds and improves the accuracy of numerous tedious computations, and provides an automatically printed copy of results.

Category Name	Required Progs.	Prog. Steps	Card Sides	PC-100A Needed / Library Module ID
Astrology		186	1	☐ / ☐

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Submission Checklist

- ☒ Recorded Magnetic Cards
- ☒ Submission Abstract
- ☒ Program Description
- ☒ User Instructions
- ☒ Sample Problem
- ☒ Listing
- ☐ _____
- ☐ _____

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Program Description

Program Title: ASTRO II - ASPECTS, INDIVIDUAL AND MUTUAL

Rev.

Method, Equations, Sketches, Limitations, References, Error Recovery:

This program permits the entry of 12 planetary positions from an individual's birth chart, computes the array of planetary aspects, and displays (and with the print cradle, prints) aspects in degrees and minutes. The 12 position entries may be made from the keyboard in Zodiac Notation, or may be read in from a magnetic card "Client File". Two charts may also be compared for mutual aspects.

Notation. In Zodiac Notation, a planet position is represented SS.DDMM. "SS" is the sign of the zodiac. For Aires, SS = 1; for Taurus, SS = 2; etc. "DD" is degrees, "MM" is minutes. For example -

6)(45 corresponds to 12.0645

Internal to the program, Right Ascension Notation is used. For example:

6)(45 corresponds to 336°75', displayed as 336.75

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Computations. The aspects are computed by computing angular differences in Right Ascension Notation. The absolute value of the angular difference, resolved to always be ≤180°, is computed as the "aspect". Indexing (counting) in the program systematically controls the computation of all possible aspect combinations.

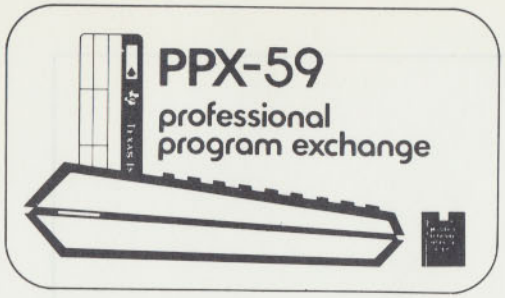
Modifications. The program may be modified to operate on the TI-59 "stand-alone", without the PC-100A, by changing LOC. 141 from 99 = *prt to 91 = R/S.

This program can be modified to calculate Single Planet Pairs by changing the following locations:

Loc.	Code
064	00
085	00
089	00
090	01
142	98
143	91
184	12

☐ See Continuation Sheet

9 7 8 0 0 2



User Instructions

Program Title ASTRO II

A-B	A-A	Fill		Init

Partition (OP 17): 479.59*

Parenthesis Levels: 1

t Register ☐

Angular Mode (if applicable):

SBR Levels: 2

Absolute Addresses ☑

Library Module ID:

* for TI-58 239.29

Disturbs Pending Operations ☑

LABELS (Op 08)

INV	lnx	CE	CLR	x:t	x²
√x	1/x	STO	RCL	SUM	yˣ
EE	(	)	÷	GTO	×
SBR	−	RST	+	R/S	•
+/−	=	CLR	INV	log	CP
tan	Pgm	P→R	sin	cos	CMs
Exc	Prd	|x|	Eng	Fix	Int
Deg	Pause	x=t ✓	Nop ✓	Op	Rad
Lbl	x≠t	Σ+	x̄	Grad	St flg
If flg ✓	D.MS ✓	π ✓	List	Write	Dsz
Adv	Prt				

USER DEFINED KEYS

A	A-B Matrix
B	A-A Matrix
C	Planet Entry
D	
E	Initialize
A'	Separate Integer
B'	Zod/Rt. Ascesnsion
C'	
D'	Diff.
E'	Flash End

FLAGS	0	1	2	3	4	5	6	7	8	9

STEP	PROCEDURE	ENTER	PRESS	OUTPUT/MODE (see legend below)
	I. For A-A Matrix, Individual Aspects			
1	Enter Program			
2	Initialize		E	12
3	Fill Planet Buffer			
	a. Enter SUN in Zodiac Notation	SS.DDMM	C	Entry in Rt. Asc.
	b. Enter MOON in Zodiac Notation	SS.DDMM	C	"
	c. Enter MERCURY, VENUS, MARS, JUPITER, SATURN, URANUS, NEPTUNE, PLUTO, ASCENDANT, AND MC in the same manner			Display Flashes
4	Clear Flashing. Print Matrix		CE B	Prints Aspects (See Sample Problem) Disp. Flashes upon compl.
	II. For A-B Matrix, Mutual Aspects			
6	If necessary, fill buffer as in Steps 1-3 with subject A's planets.			
7	Clear		2nd rset CLR	
8	Enter subject B's SUN	SS.DDMM	A	Prints Aspects, B's SUN vs. A's Planets
9	Enter subject B's MOON, etc., through B's ASCENDANT			

Modes: (n)• —Printed only (n)—Displayed Briefly (Pause)
n• —Printed and displayed

DATA REGISTERS (INV List)

0	Index
1	MC
2	ASC
3	Pluto
4	Neptune
5	Uranus
6	Saturn
7	Jupiter
8	Mars
9	Venus
10	Mercury
11	Moon
12	Sun
13	--
14	used
15	used
16	used
17	used
18	used
19	used

☐ See Continuation Sheet

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Continued From: ☐ Program Description ☐ User Instructions ☐ Stmt. of Example

Program Title: | Rev.

STEP	PROCEDURE	ENTER	PRESS	DISPLAY
	III. Alternate Fill Planet Buffer			
	A client File may be built that permits the clients planets to be saved on a magnetic card. The card may be RECORDED once when the planet Buffer is initally filled, be READ many times for future analysis.			
	IV. Modified Program Single Planet Pair			
1	Modify ASTRO II as indicated in PROGRAM DESCRIPTION			
2	Initialize		E	2
3	Enter first planet	SS.DDMM	C	Entry in Rt. ASC.
4	Enter second planet	SS.DDMM	C	*DDD.MM, Aspect in degrees and min.
5	For other aspects, repeat from Step 2.			

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Sample Problem

Statement of Example

Given Jimmie Carter's radical chart, compute all of his individual planetary aspects.

With Carter's planets still in the Planet Buffer, compare Ford's planets, one-by-one, to Carter's.

☐ See Continuation Sheet

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ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
I. With ASTRO II in the TI-59, compute Carter's individual aspects.			
	E	12	Initialize
7.0804	C	188.0666667	
8.1348	C	223.8	
6.2112	C	171.2	
5.2320	C	143.3333333	
11.2554	C	325.9	
9.1426	C	254.4333333	
8.0155	C	211.9166667	
12.1847	C	348.7833333	
5.2148	C	141.8	
4.1332	C	103.5333333	
7.2606	C	206.1	
4.2828	C	118.4666667	
		Flashing	Flashing End
	CE	118.4666667	
	B	*Print A-A Matrix,	See Figure 1
		0.00	
		Flashing	Flashes End
	CE	0.00	

Modes: (n)* —Printed only (n)—Displayed Briefly (Pause)
n* —Printed and displayed

☐ Over

PPX-59 Professional Program Exchange
Sample Problem (cont'd)

9 7 8 0 0 2
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ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
☉ 0.00	♀ 0.00	♅ 0.00	
35.43	177.25 ☌ ♂	152.01	
16.52	111.06	114.45 △ ♀	
44.43 L ♀	68.34	142.40	
137.49	154.33	129.40	
66.22	1.31 ☌ ♆		
23.51	39.48	♆ 0.00	
160.43	62.46	38.16	
46.16 L ♆	24.52 ✱ ASC	64.18	
84.31 □ ♀		23.19	
18.01	♂ 0.00		
69.36	71.28	♀ 0.00	
	113.58	102.34	
	22.52	14.55	
☽ 0.00	175.54 ☌ ♆		
52.36	137.37	ASC 0.00	
80.28	119.48 △ ASC	87.37	
102.06	152.34 ⊼ MC		
30.37 ⚺ ♃			
11.52	♃ 0.00		
124.58 △ ♅	42.31		
82.00	94.21		
120.16 △ ♀	112.37		
17.42	150.54		
105.19	48.19		
	135.58		
☿ 0.00	♄ 0.00		
27.52	136.52		
154.42	70.07		
83.13	108.22		
40.43	5.49		
177.34 ☌ ♅	93.27		
29.24 ⚺ ♀			
67.40			
34.54			
52.43			

Note: Symbols are lettered in by hand for the purpose of illustration.

Modes: (n)* —Printed only (n)—Displayed Briefly (Pause)
n*—Printed and displayed

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ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
	RSET CLR	0	Clear
4.2112	A	*Print aspects, Ford's SUN to Carter's SUN, MOON, ... ASC, MC	
9.0355	A	*Print aspects, Ford's MOON to Carter's SUN, MOON, ... ASC, MC	Ford's MOON

Continue through all of Ford's Planets. Below is a sample printout of the first two groups.

76.52
112.36
60.00
32.07
145.18
143.13
100.43
122.25
30.36
7.40
94.54
7.16

55.51
20.07
72.43
100.34
81.58
10.31
32.00
104.51
102.07
140.22
37.49
125.27

Modes: (n)* —Printed only (n)—Displayed Briefly (Pause)
n*—Printed and displayed

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LOC	CODE	KEY	COMMENTS
000	91	R/S	
001	76	LBL	
002	16	A'	
003	53	(	
004	24	CE	
005	75	-	
006	93	.	
007	05	5	
008	54	)	
009	58	FIX	
010	00	00	
011	52	EE	
012	22	INV	
013	52	EE	
014	58	FIX	
015	09	09	
016	92	RTN	
017	76	LBL	
018	17	B'	
019	75	-	
020	16	A'	
021	42	STO	
022	16	16	
023	95	=	
024	48	EXC	
025	16	16	
026	75	-	
027	01	1	
028	95	=	
029	65	×	
030	03	3	
031	00	0	
032	95	=	
033	42	STO	
034	17	17	
035	43	RCL	
036	16	16	
037	65	×	
038	02	2	
039	22	INV	
040	28	LOG	
041	75	-	
042	16	A'	
043	44	SUM	
044	17	17	
045	95	=	
046	44	SUM	
047	17	17	
048	43	RCL	
049	17	17	
050	88	DMS	
051	92	RTN	
052	76	LBL	
053	19	D'	
054	53	(	
055	43	RCL	
056	19	19	
057	75	-	
058	43	RCL	
059	18	18	
060	54	)	
061	92	RTN	
062	76	LBL	
063	15	E	
064	01	1	
065	02	2	
066	42	STO	
067	00	00	
068	81	RST	
069	91	R/S	
070	76	LBL	
071	13	C	
072	17	B'	
073	72	ST*	
074	00	00	
075	97	DSZ	
076	00	00	
077	00	00	
078	69	69	
079	10	E'	
080	76	LBL	
081	12	B	
082	22	INV	
083	86	STF	
084	00	00	
085	01	1	
086	02	2	
087	42	STO	
088	15	15	
089	76	LBL	
090	68	NOP	
091	42	STO	
092	00	00	
093	76	LBL	
094	67	EQ	
095	73	RC*	
096	15	15	
097	42	STO	
098	19	19	
099	73	RC*	
100	00	00	
101	42	STO	
102	18	18	
103	19	D'	
104	77	GE	
105	87	IFF	
106	43	RCL	
107	18	18	
108	48	EXC	
109	19	19	
110	42	STO	
111	18	18	
112	19	D'	
113	76	LBL	
114	87	IFF	
115	75	-	
116	01	1	
117	08	8	
118	00	0	
119	95	=	
120	94	+/-	
121	77	GE	
122	88	DMS	
123	19	D'	
124	75	-	
125	03	3	
126	06	6	
127	00	0	
128	95	=	
129	94	+/-	
130	61	GTO	
131	89	π	
132	76	LBL	
133	88	DMS	
134	19	D'	
135	76	LBL	
136	89	π	
137	22	INV	
138	88	DMS	
139	58	FIX	
140	02	02	
141	99	PRT	
142	97	DSZ	
143	00	00	
144	67	EQ	
145	98	ADV	
146	87	IFF	
147	00	00	
148	01	01	
149	91	91	
150	01	1	
151	22	INV	
152	44	SUM	
153	15	15	
154	43	RCL	
155	15	15	
156	42	STO	
157	00	00	
158	75	-	
159	01	1	
160	95	=	

MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS
161	22	INV									
162	67	EQ									
163	67	EQ									
164	10	E'									
165	91	R/S									
166	76	LBL									
167	11	A									
168	17	B'									
169	42	STO									
170	14	14									
171	86	STF									
172	00	00									
173	01	1									
174	04	4									
175	42	STO									
176	15	15									
177	01	1									
178	02	2									
179	61	GTO									
180	68	NOP									
181	76	LBL									
182	10	E'									
183	61	GTO									
184	38	SIN									
185	91	R/S									

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MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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PPX-59
professional program exchange

TEXAS INSTRUMENTS
Calculator Products Division

Submission Abstract

Program Title ASTRO III - INTERPOLATION FACTORS

Rev.

Abstract of Program

This program permits the calculation of interpolation factors from zodiac, sidereal, or latitude inputs. From a low, middle, and high entry, the interpolation factor F is computed. F, a value between 0 and 1, is the ratio of middle - low, to high - low. The three points and F are displayed (and with a print cradle, printed) in the appropriate units. This program is designed to work with appropriate units. This program is designed to work with related program "ASTRO I - Interpolation and Mid-points".

Original SR-52 Program by Richard Houghton of Dallas, Texas

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User Benefits:

Speeds and improves accuracy of astrology computations.

Category Name	Required Progs.	Prog. Steps	Card Sides	PC-100A Needed / Library Module ID
Astrology		134	1	☑ / ☐

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Signature _____ Date _____

Name Texas Instruments Tel. No. _____

Address _____

City _____ State _____ Zip _____

Submission Checklist

- ☒ Recorded Magnetic Cards
- ☒ Submission Abstract
- ☒ Program Description
- ☒ User Instructions
- ☒ Sample Problem
- ☒ Listing
- ☐ _____
- ☐ _____

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TEXAS INSTRUMENTS
Calculator Products Division

Program Description

Program Title: ASTRO III - INTERPOLATION FACTORS

Rev.

Method, Equations, Sketches, Limitations, References, Error Recovery:

This program permits the calculation of interpolation factors from zodiac, sidereal, or latitude inputs. From a low, middle, and high entry, the interpolation factor F is computed. The three points and F are displayed (and with the print cradle, printed) in the appropriate units. This program is designed to work with related program "ASTRO I - Interpolation and Mid-points".

Equations

z_e = SS.DDMM, z_m = SS.DDMM, 3_h = SS.DDMM

$F = (z_m - z_e) \div (z_h - z_e)$

Notation. In zodiac notation, "SS" is the sign of the zodiac. For Aires, SS = 1; for Taurus, SS = 2; etc. "DD" is degrees, "MM" is minutes. For example -

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6 ♓ 45 corresponds to 12.0645

Internal to the program, Right Ascension Notation is used, for example:

6 ♓ 45 corresponds to 336°75', displayed as 336.75

For sidereal and latitude, standard SR-52 D.MS notation is used.

Limitation. The program will compute zodiac across 0°, but will not compute sidereal across 0 hours. Zodiac $(z_h - z_e)$ must be $< 180°$.

☐ See Continuation Sheet

9 7 8 0 0 3

PPX-59
professional program exchange

User Instructions

Program Title				
ASTRO III				
P_1	Z_i			Init.

Partition (OP 17): 479.59*

Parenthesis Levels: _____

t Register ☐

Angular Mode (if applicable): _____

SBR Levels: _____

Absolute Addresses ☐

Library Module ID: _____

* for TI-58 239. 29

Disturbs Pending Operations ☐

LABELS (Op 08)

INV	lnx	CE	CLR	x⇄t	x²
√x	1/x	STO	RCL	SUM	y^x
EE	(	)	÷	GTO	×
SBR	−	RST	+	R/S	•
+/−	=	CLR	INV	log	CP
tan	Pgm	P→R	sin	cos	CMs
Exc	Prd	|x|	Eng	Fix	Int
Deg	Pause	x⇄t	Nop	Op	Rad
Lbl	x≥t	Σ+	x̄	Grad	St flg
If flg	D.MS	π	List	Write	Dsz
Adv	Prt				

USER DEFINED KEYS

A	Zodiac Points
B	Time/Lat Points
C	
D	
E	Initialize
A′	Separate Integer
B′	Zod./Rt. Ascension
C′	
D′	
E′	

FLAGS	0	1	2	3	4	5	6	7	8	9

STEP	PROCEDURE	ENTER	PRESS	OUTPUT/MODE (see legend below)
	I. For calculating Zodiac Interpolation Factors F:			
1.	Enter Program (A and B)			
2.	Initalize		E	3
3.	Enter Low Point z_e	SS.DDMM	B	*Print z_e, Display z_e in Rt. Ascension
4.	Enter Middle Point z_m	SS.DDMM	B	*z_m
5.	Enter High Point z_h	SS.DDMM	B	*z_h, then print & display F
6.	Anticipation further processing, store computed F (typical)		STO 0 4	
	II. For calculating sidereal or latitude interpolation Factors F:			
1.	Initialize		E	3
2.	Enter Low Point in DMs notation	DD.MMSS	A	*DD.MMSS Disp. DD.FF
3.	Enter Middle Point	DD.MMSS	A	*DD.MMSS
4.	Enter High Point	DD.MMSS	A	*DD.MMSS, then print & display F
5.	Save F (typical)		STO 0 5	

Modes: (n)*—Printed only (n)—Displayed Briefly (Pause)
n*—Printed and displayed

DATA REGISTERS (INV List)

0	Index
1	High
2	Medium
3	Low
4	
5	
6	
7	
8	
9	
0	
1	
2	
3	
4	
5	
16	Working
17	Working
8	
9	

☐ See Continuation Sheet

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Sample Problem

Statement of Example

I. Compute the interpolation factor for Gerald Ford's 1976 solar return, based upon:
Ford's Radical SUN 4.2112
0 Hrs. GMT, 7-13-76 SUN 4.2043
0 Hrs. GMT, 7-14-76 SUN 4.2142

II. Compute the interpolation factor for ASC in a Table of Houses

Lat. 40N43		ASC
Low Sidereal	19.43:34	12 ♉ 10
Middle (Birth) Sidereal	19:44:15	-----
High Sidereal	19:47:47	13 ♉ 41

☐ See Continuation Sheet

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ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
I. Zodiac Interpolation, ASTRO III			
	E	3	Initialize
4.2043	B	(4.2043)* Disregard Display	Low Point
4.2112	B	(4.2112)*	Middle Point
4.2142	B	(4.2142)*	High Point, then
		.491524238*	Print & Disp. F.
II. Sidereal Interpolation			
	E	3	Initialize
19.4334	A	(19.4334)* Disregard Display	Low Point
19.4415	A	(19.4415)*	Middle Point
19.4747	A	(19.4747)*	High Point, then
		.162055336*	Print & Disp. F.

Modes: (n)* —Printed only (n)—Displayed Briefly (Pause)
n* —Printed and displayed

☐ Over

PPX-59 Professional Program Exchange

9 7 8 0 0 3
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LOC	CODE	KEY	COMMENTS
000	91	R/S	
001	76	LBL	
002	16	A'	
003	53	(	
004	24	CE	
005	75	-	
006	93	.	
007	05	5	
008	54	)	
009	58	FIX	
010	00	00	
011	52	EE	
012	22	INV	
013	52	EE	
014	58	FIX	
015	09	09	
016	92	RTN	
017	76	LBL	
018	17	B'	
019	75	-	
020	16	A'	
021	42	STO	
022	16	16	
023	95	=	
024	48	EXC	
025	16	16	
026	75	-	
027	01	1	
028	95	=	
029	65	×	
030	03	3	
031	00	0	
032	95	=	
033	42	STO	
034	17	17	
035	43	RCL	
036	16	16	
037	65	×	
038	02	2	
039	22	INV	
040	28	LOG	
041	75	-	
042	16	A'	
043	44	SUM	
044	17	17	
045	95	=	
046	44	SUM	
047	17	17	
048	43	RCL	
049	17	17	
050	88	DMS	
051	92	RTN	
052	76	LBL	
053	88	DMS	
054	91	R/S	

LOC	CODE	KEY	COMMENTS
055	76	LBL	
056	12	B	
057	99	PRT	
058	17	B'	
059	72	ST*	
060	00	00	
061	97	DSZ	
062	00	00	
063	88	DMS	
064	43	RCL	
065	01	01	
066	75	-	
067	43	RCL	
068	03	03	
069	95	=	
070	77	GE	
071	89	π	
072	03	3	
073	06	6	
074	00	0	
075	44	SUM	
076	01	01	
077	76	LBL	
078	89	π	
079	43	RCL	
080	02	02	
081	75	-	
082	43	RCL	
083	03	03	
084	95	=	
085	77	GE	
086	77	GE	
087	03	3	
088	06	6	
089	00	0	
090	44	SUM	
091	02	02	
092	76	LBL	
093	77	GE	
094	53	(	
095	43	RCL	
096	02	02	
097	75	-	
098	43	RCL	
099	03	03	
100	54	)	
101	55	÷	
102	53	(	
103	43	RCL	
104	01	01	
105	75	-	
106	43	RCL	
107	03	03	
108	54	)	
109	95	=	

LOC	CODE	KEY	COMMENTS
110	99	PRT	
111	98	ADV	
112	92	RTN	
113	76	LBL	
114	87	IFF	
115	91	R/S	
116	76	LBL	
117	11	A	
118	99	PRT	
119	88	DMS	
120	72	ST*	
121	00	00	
122	00	0	
123	97	DSZ	
124	00	00	
125	87	IFF	
126	61	GTO	
127	77	GE	
128	76	LBL	
129	15	E	
130	03	3	
131	42	STO	
132	00	00	
133	91	R/S	

MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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9,7 8,0,0,4
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PPX-59
professional program exchange

TEXAS INSTRUMENTS
Calculator Products Division

Submission Abstract

Program Title	Rev.
PLACIDUS HOUSES	

Abstract of Program

For Astrologers who use the PLACIDIAN SYSTEM for house division in determining the cusps of the M.C., 11th, 12th, ASC., 2nd and 3rd houses, this program replaces the book of tables and eliminates all interpolation chores when given the Sidereal Time and Latitude of the event. Calculations are made to the 7th difference producing a maximum error of only .00005° Right Ascension. Results are printed (displayed in degrees longitude, where 0° equals Aries.

User Benefits:

Program accurately calculates PLACIDUS HOUSE cusps without the need for Tables and interpolation chores.

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Category Name Astrology	Required Progs.	Prog. Steps 202	Card Sides 1	PC-100A Needed ☐ Library Module ID ☐

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Address _____

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Submission Checklist

- ☒ Recorded Magnetic Cards
- ☒ Submission Abstract
- ☒ Program Description
- ☒ User Instructions
- ☒ Sample Problem
- ☒ Listing
- ☐ _____
- ☐ _____

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Program Description

Program Title: PLACIDUS HOUSES

Rev.

Method, Equations, Sketches, Limitations, References, Error Recovery:

The method given was adapted from Hugh Rice's "American Astrology Tables of Houses" as described by Neil F. Michelsen in his outstanding book "The American Ephemeris 1931 to 1980"

The obliquity of the ecliptic (OE) is set at 23°26'24".

1. Right ascension of the Midheaven (RAMC) is determined by converting sidereal Time (ST) to angular measure (1h = 15°)

2. Midheaven (MC) becomes:

$$MC = ATAN\left[\frac{TAN\ RAMC}{COS\ OE}\right]$$

3. Calculation of the house cusps, LAT = latitude of the event, uses the following values for F and for the initial approximation of RA_1:

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House	Initial RA	F
11th	RAMC + 30°	3
12th	RAMC + 60°	1.5
Asc	RAMC + 90°	1
2nd	RAMC + 120°	1.5
3rd	RAMC + 150°	3

4. A. $$RAMC + \frac{ACOS\ [-(SIN\ RA_1)(TAN\ OE)(TAN\ LAT)]}{F} = RA_2$$

B. 7 iterations of 'set RA, equal to RA_2' are used for a high degree of accuracy.

C. Convert RA_2 to longitude as follows:

$$ATAN\ \frac{TAN\ RA_2}{COS\ OE} = Longitude$$

4. et seq, is used in determining the 11th and 12th cusps.

5. A. for the ASC., 2nd and 3rd cusps, formula 4. A. is modified as follows:

$$RAMC + 180^{o} - \frac{ACOS\ [(SIN\ RA_1)(TAN\ OE)(TAN\ LAT)]}{F} = RA_2$$

☐ See Continuation Sheet

Continued From: ☒ Program Description ☐ User Instructions ☐ Stmt. of Example

Program Title: PLACIDUS HOUSES	Rev.

5. B. Same as 4. B.

5. C. Same as 4. C.

6. To assure ease in interpretation - 1) the MC is tested and placed in the same quadrant as the RAMC, and 2) the house cusps are tested as to longitude greater than the MC (but less than 360°)

7. The TI-59 is set to Degrees. Program designed for North Latitudes.

8. Display is sequentially MC, 11th, 12th, Asc, 2nd and 3rd.

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9. For South Latitudes if ST is greater than 12h subtract 12; if ST is less than 12h add 12. For South Latitudes then, the display is sequentially 4th, 5th, 6th, 7th, 8th, and 9th, where MC through 3rd is sign opposite 4th through 9th.

9	7	8	0	0	4

PPX-59 professional program exchange

User Instructions

Program Title PLACIDUS HOUSES

After 12h	Before 12h			

Partition (OP 17): 479 . 59 *

Parenthesis Levels: 2

t Register ☐

Angular Mode (if applicable): Degree

SBR Levels: 1

Absolute Addresses ☐

Library Module ID

* for TI-58 239.29

Disturbs Pending Operations ☑

LABELS (Op 08)

INV	lnx	CE	CLR	x:t	x²
√x	1/x	STO ✓	RCL ✓	SUM	y^x
EE	(	)	÷	GTO	×
SBR	−	RST	+	R/S	•
+/−	=	CLR	INV	log	CP
tan	Pgm	P→R	sin	cos	CMs
Exc	Prd	|x|	Eng	Fix	Int
Deg	Pause	x=t	Nop ✓	Op ✓	Rad
Lbl	x≠t ✓	Σ+ ✓	x̄	Grad	St flg
If flg ✓	D.MS ✓	π ✓	List	Write	Dsz ✓
Adv	Prt ✓				

USER DEFINED KEYS

A	Initialize - ST > 12L
B	Initialize - ST < 12L
C	
D	
E	
A'	Subroutine
B'	Subroutine
C'	
D'	Subroutine
E'	

FLAGS 0	RAMC Model 1	ST 12h 2	3	4	5	6	7	8	9

STEP	PROCEDURE	ENTER	PRESS		OUTPUT/MODE (see legend below)
1	Set to Degree Mode		2nd	Deg	
2.	Enter Latitude of Event				
	a) if ST of event Before 12 h	Lat		B	(Latitude°)* Latitude (D.MS)
	b) if ST of event After 12 h	Lat		A	" "
3	Enter Sidereal Time of Event (ST)	ST		R/S	(MC Cusp)*
					(11th Cusp)*
					(12th Cusp)*
					(Asc Cusp)*
					(2nd Cusp)*
					(3rd Cusp)*

Notes:

a) The algorithm employed will not handle exact cusps of Cardinal signs Aries, Cancer, Libra, Capricorn, of Zero Degrees, no minutes + seconds (ST exactly 0L, 6L, 12L, 18L). Simply add a minute to these 4 points.

b) Running time can be shortened, with less accuracy however, by changing Location from 7 to a lesser number.

c) To run this program on a stand-a-lone TI-59, change locations 63 and 197 from PRT to R/S. Press R/S after each cusp to get the next cusp.

d) Run time between answers may be as long as a minute

Modes: (n)• —Printed only (n)—Displayed Briefly (Pause)
n• —Printed and displayed

DATA REGISTERS (INV List)

0	Dsz
1	F(3rd)3
2	F(2nd)1.5
3	
4	F(12th)1.5
5	F(11th)3
6	
7	7 iterations Test
8	
9	
0	
1	
2	
13	RAMC + °(initial RA$_1$)
4	
15	RA$_2$
6	
17	RAMC
18	Latitude
19	23.44 (OE)

☐ See Continuation Sheet

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9	7	8	0	0	4

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Sample Problem

Statement of Example

1. Determine Cusp for ST Event, 6h 22m 15s, 45N 22LAT (Note: 6h is Before 12h)

2. Determine Cusp of ST Event, 14h 15m 27s, 38N 05 LAT (Note: 14h is After 12h)

For TI-59 stand-alone operation: Change locations 063 and 197 from PRT(99) to R/S (91) and press R/S for each display.

The run timebetween answers may be as much as 1 minute.

☐ See Continuation Sheet

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ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
1. 45.22	B (efore 12 ST)	(45.22)* 45.36666667	Latitude °/D.MS
6.22/5	R/S	(6.2215)*	Sidereal Time
		(95.06216044)*	MC (S♋ 06'21.6")
		(129.2852063)*	11th (9♐28'52.1")
		(159.2754828)*	12th (9♏27'54.8")
		(184.122382)*	Asc (4♒12'23.8")
		(209.4713541)*	2nd (29♒47'13.5")
		(240.2501528)*	3rd (0♐25'01.5")
2. 38.05	A(fter 12ST)	(38.05)* 38.08333333	Latitude °/D.MS
14.1527	R/S	(14.1527)*	Sidereal Time
		(216.1051284)*	MC (6♍10'51.3")
		(240.2539347)*	11th (0♐25'39.3")
		(261.3247079)*	12th (21♐32'47.1")
		(283.3033996)*	Asc (13♑30'34.0")
		(324.2335094)*	2nd (24♒23'35.1")
		(4.444328661)*	3rd (4♈44'43.3")

Modes: (n)* —Printed only (n)—Displayed Briefly (Pause)
n* —Printed and displayed

☐ Over

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LOC	CODE	KEY	COMMENTS
000	91	R/S	
001	76	LBL	
002	16	A'	
003	85	+	
004	01	1	
005	08	8	
006	00	0	
007	54	)	
008	92	RTN	
009	76	LBL	
010	17	B'	
011	43	RCL	
012	17	17	
013	92	RTN	
014	76	LBL	
015	11	A	
016	86	STF	
017	02	02	
018	76	LBL	
019	12	B	
020	99	PRT	
021	88	DMS	
022	42	STO	
023	18	18	
024	92	RTN	
025	99	PRT	
026	88	DMS	
027	65	×	
028	01	1	
029	05	5	
030	95	=	
031	42	STO	
032	17	17	
033	42	STO	
034	13	13	
035	30	TAN	
036	55	÷	
037	02	2	
038	03	3	
039	93	.	
040	04	4	
041	04	4	
042	42	STO	
043	19	19	
044	39	COS	
045	95	=	
046	22	INV	
047	30	TAN	
048	29	CP	
049	77	GE	
050	87	IFF	
051	16	A'	
052	76	LBL	
053	87	IFF	
054	22	INV	
055	87	IFF	
056	02	02	
057	99	PRT	
058	16	A'	
059	76	LBL	
060	99	PRT	
061	22	INV	
062	88	DMS	
063	99	PRT	← R/S FOR TI-59
064	03	3	STAND ALONE OPERATION.
065	42	STO	
066	05	05	
067	42	STO	
068	01	01	
069	01	1	
070	93	.	
071	05	5	
072	42	STO	
073	04	04	
074	42	STO	
075	02	02	
076	05	5	
077	42	STO	
078	00	00	
079	76	LBL	
080	97	DSZ	
081	03	3	
082	00	0	
083	44	SUM	
084	13	13	
085	43	RCL	
086	13	13	
087	42	STO	
088	15	15	
089	76	LBL	
090	88	DMS	
091	17	B'	
092	87	IFF	
093	01	01	
094	89	π	
095	85	+	
096	61	GTO	
097	78	Σ+	
098	76	LBL	
099	89	π	
100	16	A'	
101	75	-	
102	76	LBL	
103	78	Σ+	
104	53	(	
105	53	(	
106	43	RCL	
107	15	15	
108	38	SIN	
109	87	IFF	
110	01	01	
111	77	GE	
112	94	+/-	
113	76	LBL	
114	77	GE	
115	65	×	
116	43	RCL	
117	19	19	
118	30	TAN	
119	65	×	
120	43	RCL	
121	18	18	
122	30	TAN	
123	54	)	
124	22	INV	
125	39	COS	
126	54	)	
127	55	÷	
128	73	RC*	
129	00	00	
130	22	INV	
131	67	EQ	
132	68	NOP	
133	86	STF	
134	01	01	
135	01	1	
136	76	LBL	
137	68	NOP	
138	95	=	
139	42	STO	
140	15	15	
141	69	OP	
142	27	27	
143	43	RCL	
144	07	07	
145	75	-	
146	07	7	
147	95	=	
148	29	CP	
149	67	EQ	
150	69	OP	
151	61	GTO	
152	88	DMS	
153	76	LBL	
154	69	OP	
155	42	STO	
156	07	07	
157	43	RCL	
158	15	15	
159	30	TAN	
160	55	÷	

MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS
161	43	RCL									
162	19	19									
163	39	COS									
164	95	=									
165	22	INV									
166	30	TAN									
167	76	LBL									
168	19	D'									
169	75	-									
170	17	B'									
171	95	=									
172	77	GE									
173	43	RCL									
174	85	+									
175	17	B'									
176	16	A'									
177	95	=									
178	61	GTO									
179	19	D'									
180	76	LBL									
181	43	RCL									
182	85	+									
183	17	B'									
184	75	-									
185	03	3									
186	06	6									
187	00	0									
188	95	=									
189	77	GE									
190	42	STO									
191	16	A'									
192	16	A'									
193	76	LBL									
194	42	STO									
195	22	INV									
196	88	DMS									
197	99	PRT ←	R/S. FOR TI-59 STAND ALONE OPERATION.								
198	97	DSZ									
199	00	00									
200	97	DSZ									
201	81	RST									

MERGED CODES

62	Pgm	Ind	72	STO	Ind	83	GTO	Ind
63	Exc	Ind	73	RCL	Ind	84	Op	Ind
64	Prd	Ind	74	SUM	Ind	92	INV	SBR

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TEXAS INSTRUMENTS
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Submission Abstract

Program Title	Rev.
ASTROLOGY - BIRTHCHART & PRIMARY DIRECTIONS	

Abstract of Program

This program may be of substantial aid in constructing a natal horoscope or computing primary directions. For both purposes the program will compute the adjusted sidereal time of a birth or anniversary and the longitude of each planet at the time of birth or anniversary. The program requires an ephemeris for the year of birth, the exact time and longitude when the event took place, the longitude of the time zone from which the standard time was derived and the user must correct for daylight saving time when applicable. The houses of the birthchart and hence the ascendent and mid heaven can be found from the adjusted sidereal time by reference to a table of houses. Interpretation of a birthchart is very difficult, and no logical reason has ever been given for the methods employed by astrologers other than the obvious truth or falsity of the result. Most astrologers claim that events are under our control and no event must happen.

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User Benefits:

The benefits of this program are restricted to competent astrologers who require some computational aid other than a computer for their work. Charts may be bought from computer generated results with a minimum of error, and all beginners should be encouraged to seek competent help.

Category Name Astrology	Required Progs.	Prog. Steps 185	Card Sides 1	PC-100A Needed ☐ Library Module ID ☐

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Signature _____ Date _____

Name Texas Instruments Tel. No. _____

Address _____

City _____ State _____ Zip _____

Submission Checklist

- ☒ Recorded Magnetic Cards
- ☒ Submission Abstract
- ☒ Program Description
- ☒ User Instructions
- ☒ Sample Problem
- ☒ Listing
- ☐ _____
- ☐ _____

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Program Description

Program Title: ASTROLOGY - BIRTH CHART & PRIMARY DIRECTIONS

Rev.

Method, Equations, Sketches, Limitations, References, Error Recovery:

1. LMT = BT + LB/15 + LTZ/15
2. LCFST = LB/(15*365.25)
3. ECLMT = (LMT + NEC)/365.25
4. If midnight ephemeris NEC = 0 and clear flag 1 or if noon ephemeris, if LMT greater than 12, then NEC = -12 and set flag 1; otherwise NEC = 12 clear flag 1
5. AST = STE + LMT + NEC + LCFST + ECLMT
   The right side of above equation must be mod 24 hours, but program leaves this to operator.
6. AGMT = LB/15 + LMT + NEC - AFD
7. If AGMT would exceed 24 hours, then AFD is set equal to 24 and flag 2 is set; otherwise AFD is set equal to 0, and flag 2 is cleared.
8. ALP = L1+ ((L2-L1) *AGMT)/24

LMT is local mean time. NEC is noon ephemeris correction. BT is the birthtime entered into the program. LB is the longitude of birthplace as entered into the program. LTZ is longitude of time zone as entered into the program. LTZ and LB must be specified as negative if east of Greenwich. The program may fail to compute eastern longitudes correctly due to some logical shortcuts applicable to western longitudes (restriction). LCFST is longitudinal correction for sidereal time. ECLMT is elapsed correction for local mean time. AST is adjusted sidereal time as computed by the program. STE is the sidereal time for day of birth (flag 1 cleared) or sidereal time for the preceding day of birth (flag 1 set). STE is taken from the ephemeris. AGMT is the Greenwich mean time adjusted value computed by the program. AFD is the correction if the Greenwich mean time falls in the next ephemeris day (notice the noon ephemeris correction may cause flag 1 and flag 2 to cancel leaving the appropriate ephemeris day for planetary longitudes to be the birthday). L1 and L2 are the longitudes for two succeeding days. L1 is from the day previous to the birthday plus 1 if flag 2 is set plus 1 if flag 1 is clear. ALP is the longitude of planet birth time. L1 and L2 are input to program.

☐ See Continuation Sheet

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User Instructions

Program Title Astrology - Birth Chart & Primary Direc

Partition (OP 17): 479 . 59*

Parenthesis Levels: _____

t Register ☑

Angular Mode (if applicable): Degree

SBR Levels: _____

Absolute Addresses ☑

Library Module ID: _____

* for TI-58 239.29

Disturbs Pending Operations ☑

LABELS (Op 08)

INV	lnx	CE	CLR	x:t	x²
√x	1/x	STO	RCL	SUM	y^x
EE	(	)	÷	GTO	×
SBR	−	RST	+	R/S	•
+/−	=	CLR	INV	log	CP
tan	Pgm	P→R	sin	cos	CMs
Exc	Prd	|x|	Eng	Fix	Int
Deg	Pause	x=t	Nop	Op	Rad
Lbl	x≠t	Σ+	x̄	Grad	St flg
If flg	D.MS	π	List	Write	Dsz
Adv	Prt				

USER DEFINED KEYS

A	Enter data
B	Noon Ephemeris
C	Midnight Ephemeris
D	Compute ALF
E	Enter STE
A'	Display AST
B'	
C'	
D'	
E'	

FLAGS	Used 0	Used 1	Used 2	3	4	5	6	7	8	9

STEP	PROCEDURE	ENTER	PRESS	OUTPUT/MODE (see legend below)
1.	Key in ephemeris time (set angular mode to degrees)		B - noon ephemeris C - midnight ephemeris	
2.	Key in time of birth in standard time and military format: HH=hour (0-23) MM= minute (0-59) SS=second (0-59) optional (subtract hour for daylight saving time if necessary)	HH.MMSS	A	Time in hours since midnight
3.	Key in longitude of time zone: 75 - EST; 90 - CST; 105 - MST; 120 - PST Program restricted to longitudes west of Greenwich.	LLL	R/S	Digit ind. ephemeris day: 1 means day before birthday and 2 means birthday
3a.	Key in longitude of birthplace	LLL	R/S	
4.	Key in sidereal time for day indicated in display as found in ephemeris. (Display seconds should be considered as SS.SS in decimal and rounded to nearest second)	HH.MMSS	R/S	AST in HH.MMSSSS this is to be noted down
5.	To find sidereal time for an anniversary repeat step 4 appropriately (count a day for every year)			
6.	Find column for planet whose longitude is wanted.		D	Digit ind. ephemeris day.

Modes: (n)• —Printed only (n)—Displayed Briefly (Pause)
n•—Printed and displayed

☐ See Continuation Sheet

DATA REGISTERS (INV List)

0	BT
1	LTZ
2	LB/15
3	LMT + NEC
4	AGMT
5	LMT+LCFST+ECLMT+NEC
6	AST
7	L1
8	12
9	
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

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Continued From: ☐ Program Description ☒ User Instructions ☐ Stmt. of Example

Program Title: ASTROLOGY - BIRTHCHART & PRIMARY DIRECTIONS

Rev.

Step	Procedure	Enter	Press	Display
6.				1 means day before birth, 2 means day of birth, and 3 means day following birth.
7.	Key in planetary longitude from appropriate day in ephemeris. If you don't convert to degrees from signs, you better know what to do. DDD - degrees; MM - minutes; SS.SS seconds	DDD.MM	R/S	Degrees in longitude
8.	Key in planetary longitude from day following one in step 7.	DDD.MM	R/S	ALP in DD.MMSSSS note this down
9.	Go to step 6 for next planet. Go to step 8 for next progressed year, and use longitude of next day. Go to step 6 for a non-consecutive anniversary and count one day per year additional.			

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The equations and methodology employed by this program are based on the approximation techniques outlined in the following publication:

"ASTROLOGER'S CONDENSED MANUAL" by T. Patrick Davis, 227 East High Point Road, Peoria, Illinois 61614.

I would recommend the following book for more detailed and simplified chart interpretation:

"THE ASTROLOGER'S HANDBOOK" by Frances Sakoian and Louis S. Acker, Harper & Row, Publishers, 461 pages.

9	7	8	0	0	5

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Sample Problem

Statement of Example

It is desired to compute the adjusted sidereal timeand exact longitude of the moon on the birth of the following person: Male born at 4:40 PM EST November 12, 1934 at Cincinnati, Ohio whose longitude is 84W31. The ephemeris is a noon ephemeris.

☐ See Continuation Sheet

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ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
SET to Degree Mode			
1.	B		Noon Ephemeris
2. 16.40	A	16.66666667	Time of birth in hours since midnight
3. 75	R/S	75.	EST time zone longitude
4. 84.31	R/S	2	Enter sidereal time from day of birth
longitude of birthplace			
5. 15.24	R/S	19.27312772	AST to within a minute due to inaccurate ephemeris 19.28
6.	D	2.	First moon longitude 'L1' is from day of birth.
7. 298.19	R/S	298.3166667	Longitude is degrees.
8. 312.26	R/S	304.0009167	Longitude of moon at birthtime is 4 degrees and 00 minutes of aquarius.
longitude of day following birth			

Modes: (n)• —Printed only (n)—Displayed Briefly (Pause)
n• —Printed and displayed

☐ Over

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LOC	CODE	KEY	COMMENTS
000	76	LBL	
001	12	B	
002	22	INV	
003	86	STF	
004	00	00	
005	92	RTN	
006	76	LBL	
007	13	C	
008	86	STF	
009	00	00	
010	92	RTN	
011	76	LBL	
012	11	A	
013	88	DMS	
014	42	STO	
015	00	00	
016	92	RTN	
017	88	DMS	
018	42	STO	
019	01	01	
020	92	RTN	
021	88	DMS	
022	55	÷	
023	01	1	
024	05	5	
025	95	=	
026	42	STO	
027	02	02	
028	94	+/-	
029	85	+	
030	43	RCL	
031	01	01	
032	55	÷	
033	01	1	
034	05	5	
035	85	+	
036	43	RCL	
037	00	00	
038	22	INV	
039	86	STF	
040	01	01	
041	87	IFF	
042	00	00	
043	00	00	
044	59	59	
045	75	-	
046	01	1	
047	02	2	
048	95	=	
049	29	CP	
050	77	GE	
051	00	00	
052	59	59	
053	86	STF	
054	01	01	

LOC	CODE	KEY	COMMENTS
055	24	CE	
056	85	+	
057	02	2	
058	04	4	
059	95	=	
060	42	STO	
061	03	03	
062	85	+	
063	43	RCL	
064	02	02	
065	95	=	
066	42	STO	
067	04	04	
068	22	INV	
069	86	STF	
070	02	02	
071	75	-	
072	02	2	
073	04	4	
074	95	=	
075	22	INV	
076	77	GE	
077	00	00	
078	83	83	
079	42	STO	
080	04	04	
081	86	STF	
082	02	02	
083	53	(	
084	43	RCL	
085	03	03	
086	85	+	
087	43	RCL	
088	02	02	
089	54	)	
090	55	÷	
091	03	3	
092	06	6	
093	05	5	
094	93	.	
095	02	2	
096	05	5	
097	85	+	
098	43	RCL	
099	03	03	
100	95	=	
101	42	STO	
102	05	05	
103	76	LBL	
104	15	E	
105	01	1	
106	87	IFF	
107	01	01	
108	01	01	
109	12	12	

LOC	CODE	KEY	COMMENTS
110	25	CLR	
111	02	2	
112	92	RTN	
113	88	DMS	
114	85	+	
115	43	RCL	
116	05	05	
117	95	=	
118	42	STO	
119	06	06	
120	76	LBL	
121	16	A'	
122	43	RCL	
123	06	06	
124	22	INV	
125	88	DMS	
126	92	RTN	
127	61	GTO	
128	01	01	
129	13	13	
130	76	LBL	
131	14	D	
132	87	IFF	
133	01	01	
134	01	01	
135	44	44	
136	87	IFF	
137	02	02	
138	01	01	
139	52	52	
140	02	2	
141	61	GTO	
142	01	01	
143	53	53	
144	87	IFF	
145	02	02	
146	01	01	
147	40	40	
148	01	1	
149	61	GTO	
150	01	01	
151	53	53	
152	03	3	
153	92	RTN	
154	88	DMS	
155	42	STO	
156	08	08	
157	92	RTN	
158	88	DMS	
159	48	EXC	
160	08	08	

MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS
161	42	STO									
162	07	07									
163	94	+/-									
164	53	(									
165	24	CE									
166	85	+									
167	43	RCL									
168	08	08									
169	54	)									
170	55	÷									
171	02	2									
172	04	4									
173	65	×									
174	43	RCL									
175	04	04									
176	85	+									
177	43	RCL									
178	07	07									
179	95	=									
180	22	INV									
181	88	DMS									
182	61	GTO									
183	01	01									
184	57	57									

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MERGED CODES

62	Pgm	Ind	72	STO	Ind	83	GTO	Ind
63	Exc	Ind	73	RCL	Ind	84	Op	Ind
64	Prd	Ind	74	SUM	Ind	92	INV	SBR

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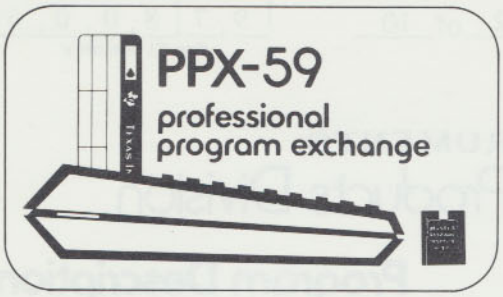

9,7 8,0,0,6
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TEXAS INSTRUMENTS
Calculator Products Division

Submission Abstract

Program Title ASTROPOINTS -SOLSTICE/ARABIAN PARTS

Rev.

Abstract of Program

Computes the twelve solstice points (sometimes called Antiscions), and the Arabian parts of the ancients (before modern discoveries of Uranus, Neptune, and Pluto). Using the so-called solar equilibrium system based upon the Arabian concepts, ninety significant points (including those of the ancients) are calculated.

Original SR-52 Program by Jack R. Irwin of Placentia, Ca.

User Benefits:

Useful in astrological research

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Category Name	Required Progs.	Prog. Steps	Card Sides	PC-100A Needed / Library Module ID
Astrology		206	1	☐ / ☐

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Submission Checklist

- ☐ Recorded Magnetic Cards
- ☐ Submission Abstract
- ☐ Program Description
- ☐ User Instructions
- ☐ Sample Problem
- ☐ Listing
- ☐ _____
- ☐ _____

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TEXAS INSTRUMENTS
Calculator Products Division

Program Description

Program Title: ASTROPOINTS - SOLSTICE/ARABIAN PARTS

Rev.

Method, Equations, Sketches, Limitations, References, Error Recovery:

Equation:

$Asc + P_j - P_i = AP_{ij}$

Where:

Asc = Ascendent degrees of R.A. (Right Ascension)
P_j = Planet j degrees of R.A.
P_i = Planet i degrees of R.A.
AP_{ij} = Arabian part degrees of R.A. (i-j is subscript index, see TABLE OF ASTRAL POINTS)

The Arabian Points uses the so-called Solar Equilibrium system based upon the Arabian concepts. The mathematical logic of the system is quite simple. The Ascendent plus the R.A. of one planet (minus 360 if the result is greater than 360°) equals the R.A. of the point. The Astrological logic can be briefly explained. If the Horoscope Wheel is rotated so that the first planet is set at the Ascendent degree, the second planet's degree will mark the Point in question. For example, when the Sun is placed at the Ascendent, the moon marks the Part of Fortune's position (Asc + - = Fortune). When Saturn is set at the Ascendent, the Sun marks the Part of Father's position (Asc + ☉ - ♄ = Father), etc.

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The program converts longitudes (manipulation of R01 to R12) to Zodiac notation at subroutine *LBL *3'. Each part is coded for easy reference by setting P_i as an integer and P_j as a fractional real, 12.11 means -☉+☽ (Fortune)

☐ See Continuation Sheet

9 7 8 0 0 6

PPX-59 professional program exchange

User Instructions

Program Title	Astropoints - Solstice/Arabian Parts			
Arabian				Solstice

Partition (OP 17): 479 . 59*

Angular Mode (if applicable):

Library Module ID:

Parenthesis Levels:

SBR Levels:

* for TI-58 239.29

t Register ☐

Absolute Addresses ☐

Disturbs Pending Operations ☑

LABELS (Op 08)

INV		lnx		CE		CLR		x:t		x²					
√x		1/x		STO	✓	RCL		SUM	✓	yˣ					
EE		(		)		÷		GTO		×					
SBR		−		RST	✓	+		R/S		•					
+/−		=		CLR		INV		log		CP					
tan		Pgm		P→R		sin		cos		CMs					
Exc		Prd		|x|		Eng		Fix		Int					
Deg		Pause		x=t	✓	Nop	✓	Op	✓	Rad					
Lbl		x=t	✓	Σ+	✓	x̄		Grad		St flg					
If flg	✓	D.MS	✓	π	✓	List		Write		Dsz	✓				
Adv		Prt													

USER DEFINED KEYS

A	Run Arabian Parts
B	
C	
D	
E	Run Solstice Parts
A'	
B'	
C'	Subroutine
D'	Subroutine
E'	Subroutine

FLAGS 0	Solstice 1	2	3	4	5	6	7	8	9

STEP	PROCEDURE	ENTER	PRESS		OUTPUT/MODE (see legend below)
1	Upon completion of Astro II have memories intact and enter program or enter pts. (longitude of placements) into memories R01 - R12 (See example for order)				
2	Determine Solstice Points			E	See Example for output
3	Determine Arabian Points			A	See Example for output
	To run the program without the aid of a PC100A change the prt commands at locations 085, 127, 164 to R/S's.				

Modes: (n)• —Printed only (n)—Displayed Briefly (Pause)
n• —Printed and displayed

☐ See Continuation Sheet

DATA REGISTERS (INV List)

0	*dsz
1	MC R.A.
2	ASC R.A.
3	♆ R.A.
4	♅ R.A.
5	♇ R.A.
6	♄ R.A.
7	♃ R.A.
8	♂ R.A.
9	♀ R.A.
10	☿ R.A.
11	☽ R.A.
12	☉ R.A.
3	
4	
5	
16	Zodiac notation
17	used
18	Arabian code
19	set in i decrements

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Sample Problem

Statement of Example

Calculate Points and Parts of sample birthchart: 12/8/36

Sym	Memory	Decimal Longitude	Sym	Zodiac Notation	Sym	Memory	Decimal Longitude	Sym	Zodiac Notation
MC	.R01	327.	♒	11.27	♃	.R07	271.4667	♑	10.0128
ASC	.R02	82.5	♊	3.223	♂	.R08	194.2667	♄	7.1416
☊	.R03	118.4167	♋	4.2825	♀	.R09	296.6833	♑	10.2641
⚷	.R04	168.9333	♍	6.1856	☿	.R10	267.9167	♐	9.2755
☋	.R05	36.15	♉	2.0609	☽	.R11	200.65	♄	7.2039
⚸	.R06	346.1167	♓	12.1607	☉	.R12	256.6	♐	9.1636

☐ See Continuation Sheet

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ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
1. Sto the above decimal longitudes into the corresponding register.			
2.	E	12.00 10.13240 11.00 12.09210 10.00 10.02045 9.00 9.03191 8.00 12.15435 7.00 9.28315 6.00 7.13525 5.00 5.23510 4.00 1.11041 3.00 3.01345	Solstice Pt. (Printed) or displayed if adapted to run with printer.

Modes: (n)• —Printed only (n)—Displayed Briefly (Pause)
n• —Printed and displayed

☐ Over

ENTER	PRESS	OUTPUT/MODE (see legend below)	COMMENT
		2.00	
		4.07300	
		1.00	
		8.03000	
		0.00000	
	A	See Continuation Sheet	Arabian Points

Modes: (n)* —Printed only (n)—Displayed Briefly (Pause)
n*—Printed and displayed

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Fortune	12.11		10.12		8.12	Father	6.12	4.12
	1.26330		3.11105		5.24495		12.22585	6.20101
Commerce	12.10	Servants	10.11		8.11	Possessions	6.11	4.11
	4.03491		1.15135		3.28525		10.27015	4.24131
Love	12.09		10.09		8.10		6.10	4.10
	5.02345		4.21161		6.06090		1.04180	7.01285
Passion	12.08	Understand	10.08	Plays	8.09		6.09	4.09
	1.20101		1.08510		7.04551		2.03041	8.00150
Increase	12.07		10.07	Discord	8.07	Sickness	6.08	4.08
	4.07221		3.26030		6.09420		10.20390	4.17495
Fatality	12.06		10.06		8.06	Brothers	6.07	4.07
	6.22011		6.10420		8.24210		1.07510	7.05015
	12.05		10.05		8.05		6.05	4.06
	8.12030		8.00435		10.14225		5.12315	9.19405
	12.04		10.04		8.04		6.04	4.05
	12.24495		12.13311		2.27101		9.25191	11.09431
	12.03		10.03		8.03		6.03	4.03
	11.04191		10.23000		1.06390		8.04480	2.01585
Spirit	11.12		9.12		7.12		5.12	3.12
	5.18270		2.12251		3.07375		11.02570	8.10405
Faith	11.10	Mother	9.11		7.11		5.11	3.11
	5.29461		12.16281		1.11405		9.07000	6.14435
Daughters	11.09		9.10		7.10		5.10	3.10
	6.28315		2.23435		3.18570		11.14161	8.22000
	11.08		9.08		7.09		5.09	3.09
	3.16071		12.10045		4.17431		12.13015	9.20461
Suns	11.07		9.07		7.08		5.08	3.08
	6.03191		2.27165		1.05180		9.00371	6.08210
	11.06		9.06	Brothers	7.06		5.07	3.07
	8.17581		5.11555		6.07090		11.17491	8.25330
	11.05		9.05		7.05		5.06	3.06
	10.08000		7.01581		7.27105		2.02281	11.10120
	11.04		9.04		7.04		5.04	3.05
	2.20465		11.14450		12.09581		8.05165	1.00135
	11.03		9.03		7.03		5.03	3.04
	1.00161		9.24135		10.19270		6.14461	5.13011

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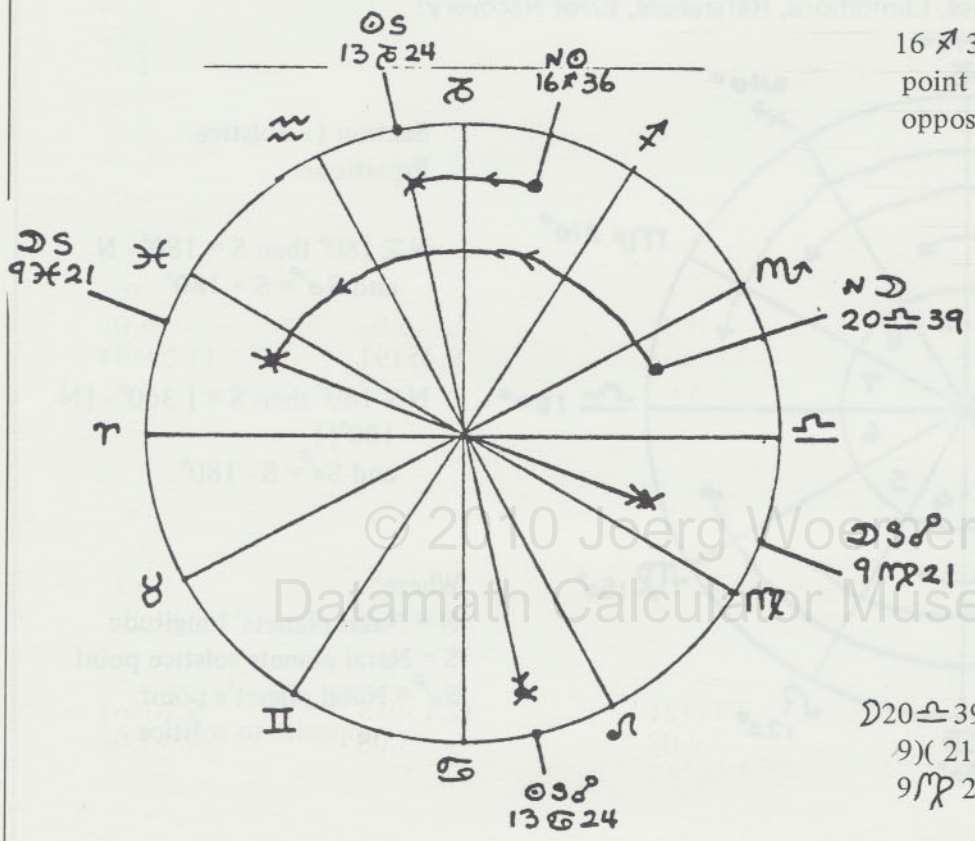
Continued From: ☒ Program Description ☐ User Instructions ☐ Stmt. of Example

Program Title: ASTROPOINTS - SOLSTICE/ARABIAN PARTS

Rev.



16♐36 gives solstice point 13♑24, and opposite 13♋24

☽20♎39 gives solstice point 9♓21, and opposite 9♍21.

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*When a progressed or transiting planet passes over the solstice point (or opposite) of a natal planet, the natal planet that this solstice point belongs to will be activated. The event will depend on the natal planet itself, the house position and the aspects that the natal planet makes in the natives chart. In particular, note those days/hours when the Moon transits these points. Transits are determined by using a current ephemeris.

*SOURCE: Ursula Lewis - Chart Your Own Horoscope, Grosset & Dunlap, Publishers, New York, 1976, Library of Congress Catalog Number 75-16862.

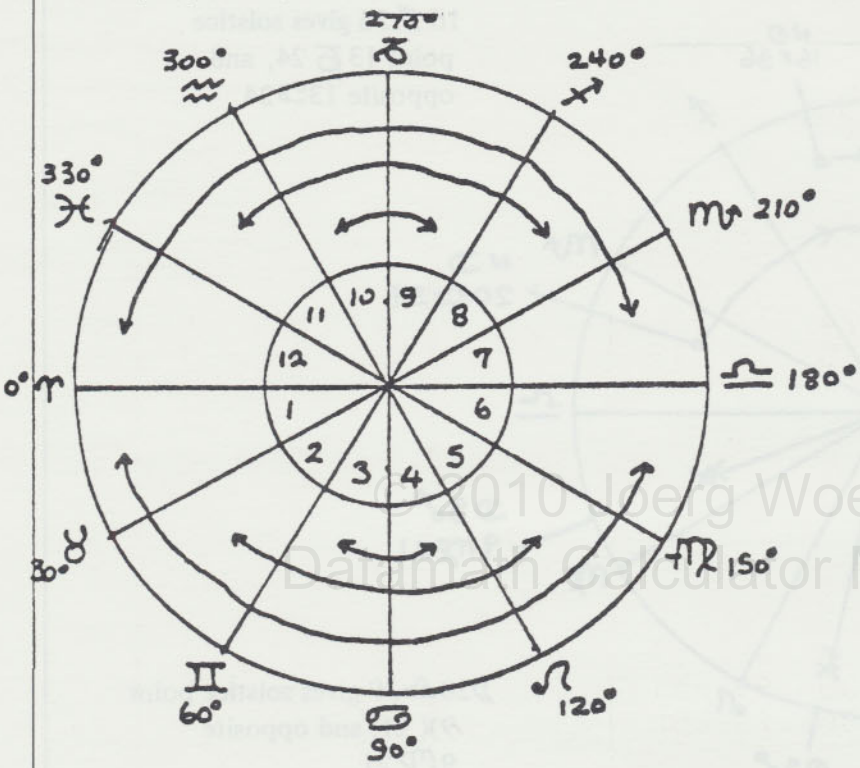
TEXAS INSTRUMENTS
Calculator Products Division

Program Description

Program Title: ASTROPOINTS - SOLSTICE/ARABIAN PARTS

Rev.

Method, Equations, Sketches, Limitations, References, Error Recovery:



Section I - Solstice Equations:

$N \geq 180°$ then $S = 180° - N$
and $S_{\circ}^{\rho} = S + 180°$

$N \leq 180°$ then $S = [\ 360° - [N - 180°]\ ]$
and $S_{\circ}^{\rho} = S - 180°$

Where:
N = Natal planets' longitude
S = Natal planets solstice point
$S_{\circ}^{\rho}$ = Natal planet's point opposite to solstice

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Program converts degrees longitude into Zodiac Notation where 1 equals Aries, 2 equals Taurus, etc., followed by degrees within the sign.

See continuation sheet for several illustrations and comments.

Solstice Points --

♋ — ♊
♌ — ♉
♍ — ♈
♑ — ♐
♒ — ♏
♓ — ♎

☐ See Continuation Sheet

PPX-59 Professional Program Exchange

9 7 8 0 0 6
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LOC	CODE	KEY	COMMENTS
000	76	LBL	
001	18	C'	
002	43	RCL	
003	00	00	
004	92	RTN	
005	76	LBL	
006	19	D'	
007	42	STO	
008	17	17	
009	92	RTN	
010	76	LBL	
011	10	E'	
012	03	3	
013	06	6	
014	00	0	
015	95	=	
016	92	RTN	
017	76	LBL	
018	81	RST	
019	91	R/S	
020	76	LBL	
021	11	A	
022	01	1	
023	02	2	
024	42	STO	
025	19	19	
026	76	LBL	
027	68	NOP	
028	98	ADV	
029	01	1	
030	02	2	
031	42	STO	
032	00	00	
033	76	LBL	
034	77	GE	
035	02	2	
036	75	-	
037	18	C'	
038	95	=	
039	77	GE	
040	88	DMS	
041	43	RCL	
042	19	19	
043	42	STO	
044	18	18	
045	18	C'	
046	65	×	
047	93	.	
048	00	0	
049	01	1	
050	95	=	
051	44	SUM	
052	18	18	
053	73	RC*	
054	00	00	

LOC	CODE	KEY	COMMENTS
055	75	-	
056	73	RC*	
057	19	19	
058	85	+	
059	43	RCL	
060	02	02	
061	75	-	
062	10	E'	
063	77	GE	
064	87	IFF	
065	85	+	
066	10	E'	
067	77	GE	
068	87	IFF	
069	85	+	
070	10	E'	
071	76	LBL	
072	87	IFF	
073	19	D'	
074	43	RCL	
075	19	19	
076	75	-	
077	18	C'	
078	95	=	
079	67	EQ	
080	67	EQ	
081	43	RCL	
082	18	18	
083	58	FIX	
084	02	02	
085	99	PRT	
086	76	LBL	
087	42	STO	
088	01	1	
089	42	STO	
090	16	16	
091	76	LBL	
092	89	π	
093	43	RCL	
094	17	17	
095	75	-	
096	03	3	
097	00	0	
098	95	=	
099	22	INV	
100	77	GE	
101	78	Σ+	
102	19	D'	
103	01	1	
104	44	SUM	
105	16	16	
106	61	GTO	
107	89	π	
108	76	LBL	
109	78	Σ+	

LOC	CODE	KEY	COMMENTS
110	85	+	
111	03	3	
112	00	0	
113	95	=	
114	22	INV	
115	88	DMS	
116	65	×	
117	93	.	
118	00	0	
119	01	1	
120	95	=	
121	44	SUM	
122	16	16	
123	43	RCL	
124	16	16	
125	58	FIX	
126	05	05	
127	99	PRT	
128	87	IFF	
129	01	01	
130	44	SUM	
131	76	LBL	
132	67	EQ	
133	97	DSZ	
134	00	00	
135	77	GE	
136	76	LBL	
137	88	DMS	
138	01	1	
139	22	INV	
140	44	SUM	
141	19	19	
142	02	2	
143	75	-	
144	43	RCL	
145	19	19	
146	95	=	
147	77	GE	
148	81	RST	
149	61	GTO	
150	68	NOP	
151	76	LBL	
152	15	E	
153	01	1	
154	02	2	
155	42	STO	
156	00	00	
157	86	STF	
158	01	01	
159	76	LBL	
160	97	DSZ	

MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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PPX-59 Professional Program Exchange

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LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS	LOC	CODE	KEY	COMMENTS
161	58	FIX									
162	02	02									
163	18	C'									
164	99	PRT									
165	73	RC*									
166	00	00									
167	75	-									
168	01	1									
169	08	8									
170	00	0									
171	54	)									
172	77	GE									
173	69	OP									
174	01	1									
175	08	8									
176	00	0									
177	75	-									
178	73	RC*									
179	00	00									
180	54	)									
181	19	D'									
182	61	GTO									
183	42	STO									
184	76	LBL									
185	69	OP									
186	10	E'									
187	75	-									
188	53	(									
189	73	RC*									
190	00	00									
191	75	-									
192	01	1									
193	08	8									
194	00	0									
195	54	)									
196	54	)									
197	19	D'									
198	61	GTO									
199	42	STO									
200	76	LBL									
201	44	SUM									
202	97	DSZ									
203	00	00									
204	97	DSZ									
205	81	RST									

MERGED CODES

62 Pgm Ind	72 STO Ind	83 GTO Ind
63 Exc Ind	73 RCL Ind	84 Op Ind
64 Prd Ind	74 SUM Ind	92 INV SBR

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ASTROLOGY

- **ASTRO I — INTERPOLATION AND MIDPOINTS**
  Interpolates between 2 points in the zodiac using an interpolation factor, F.
  TI-58 or TI-59.

- **ASTRO II — ASPECTS, INDIVIDUAL AND MUTUAL**
  Permits the entry of 12 planetary positions from an individual's birth chart and computes the array of planetary aspects and displays aspects in degrees and minutes.
  PC-100A/C required. TI-58 or TI-59.

- **ASTRO III — INTERPOLATION FACTORS**
  Calculates interpolation factors from zodiac, sidereal, or latitude inputs.
  TI-58 or TI-59.

- **PLACIDUS HOUSES**
  For Astrologers who use the PLACIDIAN SYSTEM for house division in determining the cusps of the M.C., 11th, 12th, ASC., 2nd and 3rd houses. This program replaces the book of tables and all interpolation chores.
  TI-58 or TI-59.

- **ASTROLOGY — BIRTHCHART AND PRIMARY DIRECTIONS**
  Substantial aid in constructing a natal horoscope or computing primary directions.
  TI-58 or TI-59.

- **ASTROPOINTS — SOLSTICE/ARABIAN PARTS**
  Computes the 12 solstice points, and the Arabian parts of the ancients.
  TI-58 or TI-59.

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(The program Code Lists must be keyed into blank magnetic cards.)

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