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NATAL CHART HOUSE CUSP CALCULATIONS

Enter and Check all for accuracy.

At top of form write in **Birth (natal) data** given: -

1.   Date of Birth (DOB)

2.   Time if Birth (TOB) **using 24hr clock.**

3.   Place of Birth -**Town/City/State/Country**

4.   Latitude and Longitude for the place of birth from the International Atlas or data as given.

5.   Note also if Daylight saving was in effect (data or Atlas)

    1.   Enter Time of birth on worksheet using 24**-hour clock ONLY**

    2.   Daylight Saving is <u>always deducted</u> **Enter and MINUS** any *Daylight Savings Time* from the Time of Birth (Check International Atlas or other sources of time changes). Daylight Saving is usually one hour but some countries used 2 hours during WWII. The result of any subtraction is the Local Standard Time of Birth.

    3.   Find the Standard Time Zone from your source of data or as provided from the data given and enter this on the form. The Standard Time Zone is ALWAYS whole or half hours i.e., 10hrs, 10 hrs 30 minutes, 8 hours, 7hours 30 minutes. This is because it is *Standardised Time*.

    4.   **ADD / MINUS the Standard Time Zone to the Standard Time of Birth.** For Western Latitudes **ADD** for Eastern Latitudes **SUBTRACT.**

    5.   This brings you to the **Greenwich Mean Time (GMT)** Time of birth and you use **THIS** time for the next section.

    6.   Check the ***Date of Birth*** as if it is a morning birth in Southern Latitudes the date may be the previous day at GMT e.g., a 3.30am birth in NSW on 7th July will become 5.30 pm (17:30 Hrs) on 6th July at GMT time. If it is a late evening birth in the Northern Hemisphere with Daylight Saving, then the GMT Date **may need a day to be added to the birth date.**

Note: you need the correct date GMT Date of Birth for sidereal time from the Ephemeris or your calculations will be incorrect.

NEXT Steps

7. Go to the ephemeris and find the **Sidereal Time for the GMT Date of Birth** and enter this on the calculation sheet.

8.

8. **Enter the GMT Time of Birth noted at <u>Step 5</u>**

9. **Calculate the** Sidereal Correction **-** the result should always be **LESS** than 4 minutes

   Easiest option is to go to the Book of Tables and look it up on the Solar-Sidereal Time correction Table II

   Manual Calculation (for the masochists)
   Hours x 10   _____ x 10 = _____ secs
   Minutes divided by 6   minutes _____ ÷ 6 = _____ secs

   <div align="center">

   ADD = _____

   </div>

   Convert answer into minutes and seconds then Enter Result into **<u>Step 9</u>**

10. **Add** the above 3 columns together to reach the **Sidereal Time of Birth at Greenwich**

11. **Longitudinal Correction (*East + West -*)**

    Method One
    Using a Time Calculator Enter the birth longitude as Hours, Minutes and Seconds then divide by 15 press the Hrs Mins Secs button on the calculator for the result in Hours, Minutes and Seconds.

    If **East** Longitude **ADD** to Sidereal GMT Time of birth

    If **West** Longitude **SUBTRACT (MINUS) from** Sidereal GMT Time of birth

    Method 2
    This information is also in the International Atlas listed with the place of birth.
    (**TIP** Do this *before* you start all the calculations and enter it on the sheet as then you don't have to stop and calculate it)

12. You now have **Northern Local Sidereal Time of Birth**

13. For Southern Latitudes <u>Add 12 hours</u>

14. *The result is the* **Southern Local Sidereal Time**

15. If either Standard time is: -
    More than 24 hrs **subtract** 24hrs.
    More than 48 hrs **subtract** 48hrs.

16. Now you have reached the FINAL **Local Sidereal Time (LST)**

17. In the Placidus Book of Tables find the Table with the figure closest to the Final Local Sidereal Time listed in the **top left-hand corner**. (The Tables start at 0hrs 0mins 0 secs and progress upwards to 23 hrs 56mins 0 secs)

18. At the top of the Table **ABOVE** the column marked ASC there is a figure e.g., 5°♋ 30´ - write this figure in the calculation sheet in the House Cusps section in the **MC Column**– note the **sign given**.

19. Go back to the Tables and go down the Column marked 11th (this is the 11th House Cusp) keep going to you reach the **Latitude of Birth e.g., 33°.** The Latitude are listed in the middle of the Tables and note down the information on that line and repeat the above process until you have completed the 11th, 12th ASC, 2nd, and 3rd House Cusps. (If noting this on a chart the opposite House Cusps are the same degree just the opposite sign 2nd House Cusps = 5°♉30´ then 8th House cusp = 5° ♏ 30´)

20. If the chart is for the **Southern Latitudes** e.g., Australia reverse the astrological sign i.e. ♋ would convert to its opposite sign ♑ and record this in the column below. Make sure you note the correct **SIGN, DEGREES, AND THE MINUTES** i.e., **5°♋ 30´.**

These calculations should bring you to within a degree on the house cusps as required by the FAA Calculation Examination, but a more thorough method is included and found on page 9

Natal Calculations to House Cusps

Name: CHART A   **Date of birth: 16.12.1984**   **Time: 6:15** (24 hr clock)

Place of birth: Perth WA Australia   **Latitude: 31°S 57´**   **Longitude: 115° E 51´**

		Hours	Minutes	Seconds
1. Clock time of birth use 24-hour clock		06	15	00
2. Minus daylight saving if in effect *Always MINUS **daylight saving***	**-**	0	0	0
3. Equals Standard time of birth Add 24 hours if needed for subtraction	**=**	06	15	00
4. Standard Time Zone difference to GMT **West ADD + / East MINUS -**	**-**	8	00	00
5. GMT Time of birth (*use for 8*)	**=**	22	15	00
6. GMT **Date of birth** (**check day same**/day before/**day after at GMT**)		**GMT date Birth = 15.12.1984**		
7. Sidereal time of birth (*from ephemeris **GMT date***)		05	35	20
8. **GMT** Time of birth (recorded at Step 5)	**+**	22	15	00
9. Sidereal Correction (always less than 4 Mins) Use **Solar- Sidereal Time Correction** (**Table II)** in Book of Tables	**+**		03	39
10. Sidereal Time of birth at Greenwich	**=**	27	53	59
11. Longitudinal Correction (**Table III** OR divide longitude by 15) **West MINUS /East ADD**	**+**	07	43	24
12. Northern Local Sidereal Time	**=**	35	37	23
13. For Southern Latitudes + 12 hours	**+**	12	00	00
14 Southern Local Sidereal Time	**=**	47	37	23
15. If result over 24 hrs **minus** 24 hrs If result over 48 hrs **minus** 48 hrs	**-**	24	00	00
16. Final Local Sidereal Time (LST) Go to Book of Placidus Tables and find LST in top left-hand corner closest to LST	**=**	23	37	23

		MC	11th	12th	ASC	2nd	3rd
Figures from Tables **		24♓33	29♈27	6♊18	9♋37	1♌27	25♌30
For Southern Latitude Reverse Sign		24♍33	29♎27	6♐18	9♑37	1♒27	25♒30

** Used Higher Table at 32° latitude

Natal Calculations to House Cusps

Name: CHART B   **Date of birth: 24.9.1973**   **Time: 22:45 hrs (24 hr clock)**

Place of birth: Toronto Canada   **Latitude: 43° N 39´**   **Longitude: 79° W 23´**

		Hours	Minutes	Seconds
1. Clock time of birth use 24-hour clock		22	45	00
2. Minus daylight saving if in effect *Always MINUS daylight saving.*	-	1	00	00
3. Equals Standard time of birth Add 24 hours if needed for subtraction	=	21	45	00
4. Standard Time Zone difference to GMT **West ADD + / East MINUS**	+	05	00	00
5. GMT Time of birth (*use for 8*)	=	26 (2)	45	00
6. GMT Date of birth (Check day same/day before/day after at GMT)		**= 2:45 HOURS GMT** **GMT date Birth = 25.9.1973**		
7. Sidereal time of birth (*from ephemeris **GMT date***)		0	14	41
8. **GMT** Time of Birth (recorded at Step 5)	+	2	45	00
9. Sidereal Correction (always less than 4 Mins) Use **Solar- Sidereal Time Correction** (**Table II)** in Book of Tables	+		0	27
10. Sidereal Time of birth at Greenwich	=	2	59	58
11. Longitudinal Correction (Table III OR divide longitude by 15) **West MINUS /East ADD**	-	5	17	32
12. Northern Local Sidereal Time	=	21	42	26
13. For Southern Latitudes + 12 hours	+	0	0	0
14 Southern Local Sidereal Time	=	0	0	0
15. If result over 24 hrs **minus** 24 hrs If result over 48 hrs **minus** 48 hrs	-	0	0	0
16. Final Local Sidereal Time (LST) Go to Book of Placidus Tables and find LST in top left-hand corner closest to LST	=	21	42	26

		MC	11th	12th	ASC	2nd	3rd
Figures from Tables		23≈41	24♓56	7♉43	21♊10	11♋08	0♌39
For Southern Latitude Reverse Sign							

More Exact House Cusps Calculation

Method One
Using a Time /Scientific Calculator and the Michelson Book of Tables

Please practise with your chosen calculator and the related instruction booklet until you are comfortable with using the calculator.

Follow other instructions then.

After calculating the **FINAL Local Sidereal Time (LST)**

1. In the Placidus Book of Tables find the table with the figure closest to the Final Local Sidereal Time listed in the top left-hand corner this will be referred to as the 'higher' table. Usually, the calculated **LST** is not listed exactly in the Tables but will be between a higher time and a lower time e.g., LST = 20 hours 9 mins 30secs the nearest two tables are 20hrs 8mins (lower Table) and 20hrs 12mins (higher Table)

   (The Tables start at 0hrs 0mins 0 secs and progress upwards to 23 hrs 56mins 0 secs)

2. **Next** go to the Table with the lower sidereal time to the one you have already noted.

3. **Subtract** the lower sidereal time figure from the higher figure on the calculation sheet and note the result which should be **LESS** than 4 minutes.

4. **Convert** result to seconds (one minute = 60 seconds 2 mins = 120 secs etc)

5. Then **divide** the seconds by 240. This equals the **Constant Decimal** needed to reach the correct house cusps. Enter this into the memory of the calculator or round figure and then enter Memory.

6. Go to the higher table and find the figure above the **ASC** in the 'top box' and write this in the first line under **MC** on the calculation sheet where it says MC Larger Figure

7. The **go the 'lower' table and note the figure above the ASC this is the smaller** MC so note it on the **Calculation Sheet**

8. **Subtract** the smaller figure from the larger figure and note this below in the result column.

9. **Convert** the result into seconds if needed.

10. **Multiply** the result by the **Constant Decimal** (Step 5) and write the result in the designated column.

11. Add the result to the MC figure from the smaller table and record this in the '**Equals House Cusp**' and this is the **MC** for **Northern Latitude** Charts remember to note the **_zodiac sign_**!

12. If the chart is for the **Southern Latitudes** e.g., Australia reverse the astrological sign i.e. ♋ would convert to its opposite sign ♑ and record this in the column below. Make sure you note the correct SIGN the DEGREES and the MINUTES i.e., 5°♋ 30´ 22 ˝.

13. Go back to the Tables and go down the Column marked 11ᵗʰ (this is the 11ᵗʰ House Cusps) keep going until to you reach the **Latitude of Birth eg** 33° that is listed in the middle of the Tables and note down the information on this line until you have completed the 11ᵗʰ, 12ᵗʰ ASC, 2ⁿᵈ and 3ʳᵈ House Cusps from the larger (higher degree) and smaller (lower degrees) tables with the lower degrees below the higher for ease of subtraction.

14. **Subtract** the smaller table figures from the larger table figures for each house cusp and note this in the result columns.

15. **Convert** the results into minutes if needed.

16. Multiply the results by the **Constant Decimal** and write the result in the designated column.

17. Add the result to the figure from the smaller table and record this in the 'Equals House Cusp' notes this as the relevant house cups and ASC for a **Northern Latitude** Chart remember to note the *zodiac sign*!

18. Again, if the chart is for the **Southern Latitudes** e.g., Australia reverse the astrological sign i.e. ♈ would convert to the opposite sign ♎ and record this in the column below.

Natal Calculations to House Cusps (More Exact) with Calculator

Name: CHART A   **Date of birth: 16.12.1984**   **Time: 6:15** (24 hr clock)
Place of birth: Perth WA Australia   **Latitude: 31 S 57**   **Longitude: 115 E 51**

		Hours	Minutes	Seconds
1. Clock time of birth use 24-hour clock.		06	15	00
2. Minus daylight saving if in effect *Always MINUS daylight saving*	-	0	0	0
3. Equals Standard time of birth	=	06 (30)	15	00
4. Standard Time Zone difference to GMT Add 24 hours if needed to subtract **West ADD + / East MINUS -**	+/-	8	00	00
5. GMT Time of birth (*use for 8*)	=	22	15	00
6. GMT **Date of birth** (check day same/day before/day after at GMT)	GMT date Birth = **15.12.1984**			
7. Sidereal time of birth (*from ephemeris **GMT date***)		05	35	20
8. **GMT** Time of birth (recorded at **Step 5**)	+	22	15	00
9. Sidereal Correction (always less than 4 Mins) Use **Solar- Sidereal Time Correction** (**Table II**) in Book of Tables	+		03	39
10. Sidereal Time of birth at Greenwich	=	27	53	59
11. Longitudinal Correction (Table III OR divide longitude by 15) **West MINUS /East ADD**	+/-	07	43	24
12. Northern Local Sidereal Time	=	35	37	23
13. For Southern Latitudes + 12 hours	+	12	00	00
14 Southern Local Sidereal Time	=	47	37	23
15. If result over 24 hrs **minus** 24 hrs If result over 48 hrs **minus** 48 hrs	-	24	00	00
16. Final Local Sidereal Time (LST) Go to Book of Placidus Tables and find the times closest to LST top left corner	=	23	37	23
17. Minus lower table figure hrs-mins- sec (*From Book Tables*)	-	23	36	00
18. Result (less than 4 mins)	=		01	23
19. Convert result to seconds	=			83

| 20. Divide seconds by 240 = Constant decimal (**CD**) | **Result CD = 0.35 (0.3458)** | | | | | |

		MC	11th	12th	ASC	2nd	3rd
Larger Figure Tables		24°♓33´	29°♈27´	6°♊18´	9°♋37´	1°♌27°	25°♌30´
Minus Smaller Figure	-	23°♓28´	28°♈19´	5°♊16´	8°♋44´	0°♌34´	24°♌33´
Result	=	1°05´	1°08´	1°02´	0° 53´	0°53´	0°57´
Convert to seconds.	=	65´	68´	62´	53´	53´	57´
Multiply result by **CD**	x	0°23´	0°24´	0°21´	0° 18´	0°18´	0°20´
Add Smaller Figure from Tables	+	23°♓28´	28°♈19	5°♊16´	8°♋44´	0°♌34´	24°♌33´
House Cusp Nth Latitude	=	23°♓51´	28°♈43	5°♊37´	9°♋02´	0°♌52´	24°♌53´
South Latitude Reverse Sign	=	23°♍51´	28°♎43	5°♐38´	9°♑02´	0°♒52´	24°♒53´

Natal Calculations to House Cusps (More Exact)

Name: CHART B   **Date of birth: 24.9.1973**   **Time: 22:45 hrs** (24 hr clock)

Place of birth: Toronto Canada   **Latitude: 43 N 39**   **Longitude: 79 W 23**

		Hours	Minutes	Seconds
2. Clock time of birth use 24-hour clock		22	45	00
2. Minus daylight saving if in effect *Always Minus **daylight saving***	-	1	00	00
3. Equals Standard time of birth Borrow	=	21	45	00
4. Standard Time Zone difference to GMT Add 24 hours if needed to subtract **West ADD + / East MINUS-**	+	05	00	00
5. GMT Time of birth *(use for 8)*	=	26 (2)	45	00
6. GMT **Date of birth** (Check day same/day before/day after at GMT)	**= 2:45 HOURS GMT** **GMT date Birth = 25.9.1973**			
7. Sidereal time of birth *(from ephemeris **GMT date**)*		0	14	41
8. **GMT** Time of birth (recorded at Step 5)	+	2	45	00
9. Sidereal Correction (always less than 4 Mins) Use **Solar- Sidereal Time Correction** (**Table II**) in Book of Tables	+		0	27
10. Sidereal Time of birth at Greenwich	=	2	59	58
11. Longitudinal Correction (Time Correction Table OR divide longitude by 15) **West MINUS /East ADD**	-	5	17	32
12. Northern Local Sidereal Time	=	21	42	26
13. For Southern Latitudes + 12 hours	+			
14 Southern Local Sidereal Time	=			
15. If result over 24 hrs **minus** 24 hrs If result over 48 hrs **minus** 48 hrs	-			
16. Final Local Sidereal Time (LST) Go to Book of Placidus Tables and find the times closest to LST top left corner	=	21	42	26
17. Minus lower table figure hrs-mins- sec *(From Book Tables)*	-	21	40	00
18. Result	=		2	26
19. Convert result to seconds (less than 4 mins)	=			146
20. Divide seconds by 240 = Constant decimal (CD)	**Result CD = 0.61 (0.6083)**			

		MC	11th	12th	ASC	2nd	3rd
Larger Figure Tables		23°♒41´	24°♓56´	7°♉43´	21°♊10´	11°♋08´	0°♌39´
Minus Smaller Figure	-	22°♒39´	23♓40	6♉22	20♊10	10♋16	29♋43
Result	=	1°02´	1°16´	1°21´	1°00´	0°52´	0°56´
Convert to seconds.	=	62´	76´	81´	60´	52´	56´
Multiply result by CD	x	0°38´	0°46´	0°49´	0°37´	0°32´	0°34´
Add Smaller Figure	+	22°♒39´	23°♓40´	6°♉22´	20°♊10´	10°♋16´	29°♋43´
House Cusp Nth Latitude	=	23°♒17´	24°♓26´	7°♉11´	20°♊47´	10°♋48´	0°♌17´
South Latitude Reverse Sign	=						

Method Two

Using the Tables within the Michelson Book of Tables

1. Open Michelson Book of Tables and find Local Sidereal Time (**LST**) in **Placidus Table for Latitudes 0° to 60°** North and find the *closest Sidereal Time to answer for 16* on the calculation sheet. You will find the LST **in a box on top left hand** of each column of the rectangular tables. Find the closest as well as the next closest (higher and lower LST) which is exactly **4 minutes in difference!**

REMEMBER - *If you are calculating an opposite hemisphere birth from the tables you are using (e.g., for SOUTHERN HEMISPHERE HOUSE CUSPS) You **MUST REVERSE** the **SIGNS** as they are given for the house cusps!)*

*You will be using Table XI at back of Table of House Book to "House Cusp Interpolation Between Sidereal Times".

2. Now go to next sheet below to calculate house cusps! You will **calculate the MC Cusp first which is in the middle of the LST columns** you have looked up from your answer to 16 ABOVE.

3. The other House Cusps are located according to the **LATITUDE OF BIRTHPLACE.**

4. Next you must **find the nearest LATITUDE of the birthplace** (go down the centre of the page you are on of the Table of Houses). Alongside this Latitude is the intermediate House Cusps for 11th, 12th, Asc, 2nd & 3rd.

5. Do the same calculation as you did above for the MC now for each of the 'other' House Cusps next to the latitude you have located along that line of Latitude.

If you do not have a computer, and you wanted to calculate an accurate chart by hand for a client, then you would normally have to do 2 lots of calculations of house cusps for **both the Higher and Lower Latitude,** especially if the Latitude of the 'PLACE' you are working with has its minutes close to 30 min. (1/2 a degree). However, for FAA Exam purposes because of a time restraint - you would just choose the closest latitude to work with - where you are asked to work out the House Cusps to the nearest degree.

N.B. This separate calculation for the 2 Latitudes is not necessary for MC/IC Cusps because the **MC for a specific LST applies to ALL Latitudes**.

On Sheet 2 - House Cusp Calculations if you are calculating a Natal Chart for **Northern Hemisphere Births you will start at the TOP MC** of the chart - i.e., the 10th House Cusp and go left to 10th, 11th, 12th, Asc., 2nd & 3rd Cusps.

Whilst for **Southern Hemisphere Births you will start at the BOTTOM IC** of the chart - 4th House Cusp and go right to 5th, 6th, 7th, 8th & 9th.

Method 2   Chart A
House Cusp Calculations (use Michelson Book of Tables)

		Hours	Minutes	Seconds
Final Actual LST (Line 16)	1.	23	37	23
Subtract <u>LOWER</u> LST	2.	23	36	00
LST INCREMENT (1 – 2 = 3)	3.		1	23

＊ *No 3 is a constant you will be using for all of the House Cusps*

		Degree	Sign	Minutes
1. <u>Higher</u> MC Cusp after LST	4.	24	♓	33
Subtract <u>Lower</u> MC Cusp before LST	5.	23	♓	28
CUSP INTERVAL (4 – 5 = 6)	6.	1		05
Look up No 3 & 6 above in **Table XI** at back of 'Table of Houses'	7.			23
＊*No 3 LST Increment (read across top of page)* ＊*No 6 Cusp Interval (read down left of page)* **＊MIDHEAVEN (5 + 7 = 8)** ＊***Revere Signs for Southern Hemisphere births***	8.	**23**	**♍**	**51**
2. 11ᵗʰ House Cusp for Higher LST	9.	29	♈	27
11ᵗʰ House Cusp for Lower LST	10.	28	♈	19
CUSP INTERVAL (9 - 10 = 11)	11.	1		08
Look up No 3 & 11 in Table XI	12.			24
11ᵀᴴ HOUSE CUSP (10 + 12 = 13)	13.	**28**	**♎**	**43**
3. 12ᵗʰ House Cusp for Higher LST	14.	6	♊	18
12ᵗʰ House Cusp for Lower LST	15.	5	♊	16
CUSP INTERVAL (14 – 15 = 16)	16.	1		02
Look up No 3 & 16 in Table XI	17.			22
12ᵀᴴ HOUSE CUSP (15 + 17 = 18)	18.	**5**	**♐**	**38**
4. ASC. for Higher LST	19.	9	♋	37
ASC. for Lower LST	20.	8	♋	44
CUSP INTERVAL (19 – 20 = 21)	21.			53
Look up No 3 & 21 in Table XI	22.			19
ASCENDANT (20 + 22 = 23)	23.	**9**	**♑**	**03**
5. 2ⁿᵈ House Cusp for Higher LST	24.	1	♌	27
2ⁿᵈ House Cusp for Lower LST	25.	0	♌	34
CUSP INTERVAL (24 – 25 = 26)	26.			53
Look up No 3 & 26 in Table XI	27.			19
2ⁿᵈ HOUSE CUSP (25 + 27 = 28)	28.	**0**	**♒**	**53**
6. 3ʳᵈ House Cusp for Higher LST	29.	25	♌	30
3ʳᵈ House Cusp for Lower LST	30.	24	♌	33
CUSP INTERVAL (29 – 30 = 31)	31.			57
Look up No 3 & 31 in Table XI	32.			20
3ᴿᴰ HOUSE CUSP (30 + 32 = 33)	33.	**24**	**♒**	**53**

Method 2   Chart B
House Cusp Calculations (use Michelson Book of Tables)   Sheet 2

		Hours	Minutes	Seconds
Final Actual LST (Line 16)	1.	21	42	26
Subtract LOWER LST	2.	21	40	00
LST INCREMENT (1 – 2 = 3)	3.		2	26

*** No 3 is a constant you will be using for all of the House Cusps*

		Degree	Sign	Minutes
1. Higher MC Cusp after LST	4.	23	♒	41
Subtract Lower MC Cusp before LST	5.	22	♒	39
CUSP INTERVAL (4 – 5 = 6)	6.	1		02
Look up No 3 & 6 above in **Table XI** at back of 'Table of Houses'	7.	0		38
*No 3 LST Increment (read across top of page) *No 6 Cusp Interval (read down left of page) **MIDHEAVEN (5 + 7 = 8)** *Reverse Signs for Southern Hemisphere births* 8.		**23**	**♒**	**17**
2. 11th House Cusp for Higher LST	9.	24	♓	56
11th House Cusp for Lower LST	10.	23	♓	40
CUSP INTERVAL (9 - 10 = 11)	11.	1		16
Look up No 3 & 11 in Table XI	12.			47
11TH HOUSE CUSP (10 + 12 = 13)	13.	**24**	**♓**	**27**
3. 12th House Cusp for Higher LST	14.	7	♉	43
12th House Cusp for Lower LST	15.	6	♉	22
CUSP INTERVAL (14 – 15 = 16)	16.	1		21
Look up No 3 & 16 in Table XI	17.			50
12TH HOUSE CUSP (15 + 17 = 18)	18.	7	♉	12
4. ASC. for Higher LST	19.	21	♊	10
ASC. for Lower LST	20.	20	♊	10
CUSP INTERVAL (19 – 20 = 21)	21.	1		00
Look up No 3 & 21 in Table XI	22.			37
ASCENDANT (20 + 22 = 23)	23.	20	♊	47
House Cusp Calculations (continued)		**Degree**	**Sign**	**Minutes**
5. 2nd House Cusp for Higher LST	24.	11	♋	09
2nd House Cusp for Lower LST	25.	10	♋	16
CUSP INTERVAL (24 – 25 = 26)	26.			52
Look up No 3 & 26 in Table XI	27.			32
2ND HOUSE CUSP (25 + 27 = 28)	28.	10	♋	48
6. 3rd House Cusp for Higher LST	29.	0	♌	39
3rd House Cusp for Lower LST	30.	29	♋	43
CUSP INTERVAL (29 – 30 = 31)	31.			56
Look up No 3 & 31 in Table XI	32.			35
3RD HOUSE CUSP (30 + 32 = 33)	33.	0	♌	18

Calculating Zodiacal Longitude (Planetary Positions)

CALCULATING PLANETARY POSITIONS using the Book of Tables

In calculating the Planetary Positions, you will use three tables in The Book of Tables (back sections)
Table V is the Diurnal (Daily) Motion of **the SUN,**
Table VI is the Semidiurnal Motion of the **MOON**,
Table VII is the Diurnal Motion of the **PLANETS**.

These tables tell us how far the planet will travel in a given time based on a 24-hour movement (or 12 hour in the case of the Moon). In other words, these tables tell us how far the planet will have travelled from Midnight to GMT based on the movement in 24 hours.

You will be working in Solar time since the **planets** travel slowly, unlike the angles which move extremely quickly (hence our use of Sidereal Time).

REFER TO THE G.M.T. OR UNIVERSAL TIME OF the <u>NATAL Chart</u>

ALWAYS WORK IN GMT AT THIS POINT AS YOU ARE NOW WORKING FROM YOUR EPHEMERIS BASED ON G.M.T. Also remember that the Ephemeris lists the Sun and Moon in degrees, minutes, and seconds of a sign, whereas the Planets are listed on the worksheet only in degrees and minutes so just round off the seconds to the nearest minute.

STEP 1 List all planetary positions from the Ephemeris for the Midnight <u>AFTER</u> birth. In the case of the Moon, it can be the next Noon or Midnight whichever is closer since we are only dealing in 12 hour periods of time for the MOON. NOTE IF PLANETS ARE <u>RETROGRADE</u>

STEP 2 List all planetary positions from the Ephemeris for the Midnight <u>BEFORE</u> birth.

STEP 3 is the result of SUBTRACTING step 2 from 1 and shows us how far the planet has moved in a 24-hour period (or 12 hours for the Moon). If the Planet is retrograde the answer will be negative (-).

STEP 4 ascertains how far this is in GMT time using the appropriate tables i.e., Table V for the Sun, Table VI for the Moon and Table VII for the remaining planets. This then is the travel in (degrees) minutes and seconds of the planet from Midnight to GMT.

STEP 5 is the answer after you have added Step 4 to Step 2 and equals the planetary position at birth for the relevant planet. <u>If the planet is RETROGRADE you will be subtracting this</u>. Now review the example calculation sheets to make sure you understand all that has transpired.

Examples Zodiacal Longitude Using Book of Tables

Planet: Sun ☉   Date: 9.6.1964   Time:15:20 hrs (24 hr clock)

From Ephemeris
Planets Position on Day After Date   =   19° 8´ 18″ ♊
Planets Position on Date Given **Subtract**   = - 18 ° 10´ 55 ♊
                                Result   =   57° 23´

Position of GIVEN date   18 ° 10´ 55 ♊
Add figure from Table V   0 ° 36´ 00
                         Result = 18 ° 46´ 55″ ♊ =   18° ♊ 47´

* As you are manually completing calculations results will not always be as accurate as a computer but will be accurate if completed correctly to within a degree or less

**   rounding seconds over 30 round up e.g. 12° ♓ 42 ´ 33″ rounds to 12° ♓ 43´

Planet: Venus ♀ Date: 1.7.1948   Time: 12:05 hrs (24 hr clock)

From Ephemeris
Planets Position on Date Given   29° 03´ ♊ ℞
Planets Position on Day After Date Subtract   - 28° 31´ ♊ ℞

                            Result =   0° 32´

Because Planet **is r** then the subtraction works the other way around taking the day AFTER position from the GIVEN Dates Position.

Planets Position Given Date   =   29° 03´ ♊ ℞
Figure from Table VII   **Subtract**   - 0° 16´
                            Result   =   28° 47´ ♑ ℞

Zodiacal Longitudinal Positions
(Where's the Planet?) Using the Calculator

How do you find a planets position in the zodiac when given a time and date?

1. **Divide** the time of day given by 24 (convert to 24 hr clock if needed first) and note the result e.g., 4am enter 4 hours into calculator then divided by 24 put this into the calculator's memory (make sure you cleared the memory first)

2. Find the date given in the ephemeris and locate the planet in question.

3. Note down the planets position on the date **GIVEN** and the day **AFTER** the date given.

4. Make sure you get the right **Date and Year and** note if the planet **is direct or retrograde.**

5. **Subtract** the planets position on the date **GIVEN** from the planets position the day **AFTER** by entering into calculator as hours, minutes and seconds.

6. **Multiply** the result by the memory from Step 1 and hit the Hours Mins button.

7. **Add** the result of Step 5 to the planets position on the GIVEN date in the ephemeris and that is the PLANETS POSITION (if in direct motion)

8. If the planet is Retrograde **Subtract** the result from the position on the Day AFTER

9. Remember to note the **SIGN** and round the figures to the nearest minute.

Zodiacal Longitudinal - Using Time/ Scientific Calculator

Direct Motion
Planet: Moon ☽   Date: 11.6.1956   Time: 21:15 hrs   (24 hr clock)

21 Hrs 15 mins divided by 24 = 0.89 (Put into memory M+)

From Ephemeris
Planets Position on Day After Date   =   4° 29′ 16″ ♌
Planets Position on Date Given **Subtract**   =   19° 34′ 54″ ♋
                                         Result =   14° 54′ 22″
Multiply by Memory (MRC)
then hit hours button   Result   = 13° 16′ 12″
ADD to position of GIVEN date   + 19° 34′ 54″ ♋
                                  Result   =   32 °51′ 06   = 2°♌ 51′

Planet: Sun ☉   Date: 9.6.1964   Time:15:20 hrs (24 hr clock)

15 Hrs 20 mins divided by 24 = 0.64   (Put into memory M+)

From Ephemeris
Planets Position on Day After Date   =   19° 8′ 18″ ♊
Planets Position on Date Given **Subtract**   =   - 18 ° 10′ 55 ♊
                                       Result =   57° 23′
Multiply by Memory (MRC)
Then hit hours button   Result   0° 36′ 40″
ADD to position of GIVEN date   18 ° 10′ 55 ♊
                                Result   18 ° 47′ 35″♊ = 18 ° ♊ 48′

* As you are manually completing calculations results will not always be as accurate
as a computer but will be accurate if completed correctly to within a degree or less

**   rounding seconds over 30 round up eg 12° ♓ 42 ′ 33″ rounds to 12° ♓ 43′

Retrograde Motion

Planet: Mercury ☿ Date: 12.12.1977 Time: 2:05 hrs (24 hr clock)

2 Hrs 05 mins divided by 24 =   0.086   (Put into memory M+)

From Ephemeris
Planets Position on Date Given   7° 27´ ♑ ℞

Planets Position on Day **After** Date **Subtract**   –   7° 22´ ♑ ℞

                                    Result =   0° 05´

Because Planet **is r** then the subtraction works the other way around taking the day AFTER position from the GIVEN Dates Position.

Multiply by Memory (MRC)
Then hit hours button   =   0x 00y 26z

Planets Position Given Date   = 7° 27´ 00″ ♑ ℞

                    Subtract   – 0° 00´ 26″
                    Result   = 7° 26´ 34″ ♑ = **7° 27´ ♑ ℞**

- -

Planet: Venus ♀ Date: 1.7.1948   Time: 12:05 hrs (24 hr clock)

12 hrs 5 mins divided by 24 =   0.50   (Put into memory M+)

From Ephemeris
Planets Position on Date Given   29° 03´ ♊ ℞
Planets Position on Day After Date subtract   – 28° 31´ ♊ ℞

                              Result =   0° 32´

Because Planet **is r** then the subtraction works the other way around taking the day AFTER position from the GIVEN Dates Position.
Multiply by Memory (MRC)
Then hit hours button   =   0° 16´

Planets Position Given Date   =   29° 03´ ♊ ℞

                    Subtract   –   0° 16´
                    Result   =   28° 47´ ♑ ℞

Planet: Mars ♂   **Date: 1.10.1959   Time: 19:40 hrs (24 hr clock)**

19 hrs 40 mins divided by 24 = 0.82 (Put into memory M+)

From Ephemeris
Planets Position on Day After Date   = 17° 01´♎
Planets Position on Date Given **Subtract**   = <u>16° 21´♎</u>
                                   Result   =   40´
Multiply by Memory (MRC)
Then hit hours button   Result   =   0° 33´
ADD to position of GIVEN date   +   <u>16° 21´♎</u>
                                   Result   = 16´54 ♎

Section One

Worksheets

Natal Calculations to House Cusps

Name: _____   **Date of birth:** _____   **Time:** _____ (24 hr clock)

Place of birth: _____ **Latitude:** _____ **Longitude:** _____

		Hours	Minutes	Seconds
1. Clock time of birth use 24-hour clock				
2. Minus daylight saving if in effect *Always minus daylight saving*	**-**			
3. Equals Standard time of birth **Add 24 hours if needed to subtract**	**=**			
4. Standard Time Zone difference to GMT **West ADD + / East MINUS**	**+/-**			
5. GMT Time of birth (*use for 8*)	**=**			
6. GMT **Date of birth** **(check day same/day before/day after at GMT)**	**GMT date Birth =**			
7. Sidereal time of birth *(from ephemeris **GMT date**)*				
8. **GMT** Time of birth (recorded at Step 5)	**+**			
9. Sidereal Correction (always less than 4 Mins) Use **Solar- Sidereal Time Correction (Table II)** in Book of Tables	**+**			
10. Sidereal Time of birth at Greenwich	**=**			
11. Longitudinal Correction (Table III OR divide longitude by 15) **West MINUS /East ADD**	**+/-**			
12. Northern Local Sidereal Time	**=**			
13. For Southern Latitudes + 12 hours	**+**			
14 Southern Local Sidereal Time	**=**			
15. If result over 24 hrs **minus** 24 hrs If result over 48 hrs **minus** 48 hrs	**-**			
16. Final Local Sidereal Time (LST) Go to Book of Placidus Tables and find LST in top left-hand corner closest to LST	**=**			

		MC	11th	12th	ASC	2nd	3rd
Figures from Tables							
For Southern Latitude Reverse Sign							

Natal Calculations to House Cusps (Exact)

Name: _____   **Date of birth:** _____   **Time:** _____ (24 hr clock)

Place of birth: _____ **Latitude:** _____ **Longitude:** _____

		Hours	Minutes	Seconds
3. Clock time of birth use 24-hour clock. 4.				
2. Minus daylight saving if in effect *Always minus daylight saving*	**-**			
3. Equals Standard time of birth	**=**			
4. Standard Time Zone difference to GMT West ADD + / East MINUS-	**+/-**			
5. GMT Time of birth *(use for 8)*	**=**			
6. GMT **Date of birth** *(check day same/day before/day after at GMT)*	**GMT date Birth =**			
7. Sidereal time of birth *(from ephemeris **GMT date**)*				
8. **GMT** Time of birth (recorded at Step 5)	**+**			
9. Sidereal Correction (always less than 4 Mins) Use **Solar- Sidereal Time Correction** (**Table II)** in Book of Tables	**+**			
10. Sidereal Time of birth at Greenwich	**=**			
11. Longitudinal Correction *(Table III OR divide longitude by 15)* **West MINUS /East ADD**	**+/-**			
12. Northern Local Sidereal Time	**=**			
13. For Southern Latitudes + 12 hours	**+**			
14 Southern Local Sidereal Time	**=**			
15. If result over 24 hrs **minus** 24 hrs If result over 48 hrs **minus** 48 hrs	**-**			
16. Final Local Sidereal Time (LST) **Go to Book of Placidus Tables and find the times closest to LST top left corner**	**=**			
17. Minus lower table figure hrs-mins- sec (*From Book Tables*)	**-**			
18. Result	**=**			
19. Convert result to seconds (less than 4 mins)	**=**			
20. Divide seconds by 240 = Constant decimal (CD)		**Result CD =**		

		MC	11th	12th	ASC	2nd	3rd
Larger Figure Tables							
Minus Smaller Figure	**-**						
Result	**=**						
Convert to seconds.	**=**						
Multiply result by CD	**X**						
Add Smaller Figure	**+**						
House Cusp Nth Latitude	**=**						
South Latitude Reverse Sign	**=**						

House Cusp Calculations (use Michelson Book of Tables)   Sheet 2

		Hours	Minutes	Seconds
Final Actual LST (Line 16)	1.			
Subtract <u>LOWER</u> LST	2.			
LST INCREMENT (1 – 2 = 3)	3.			

__No 3 is a constant you will be using for all of the House Cusps__

		Degree	Sign	Minutes
1. <u>Higher</u> MC Cusp after LST	4.			
Subtract <u>Lower</u> MC Cusp before LST	5.			
CUSP INTERVAL (4 – 5 = 6)	6.			
Look up No 3 & 6 above in **Table XI** at back of 'Table of Houses'	7.			
No 3 LST Increment (read across top of page) *No 6 Cusp Interval (read down left of page)* **MIDHEAVEN (5 + 7 = 8)** *Reverse Signs for Southern Hemisphere births*	8.			
2. 11th House Cusp for Higher LST	9.			
11th House Cusp for Lower LST	10.			
CUSP INTERVAL (9 - 10 = 11)	11.			
Look up No 3 & 11 in Table XI	12.			
11TH HOUSE CUSP (10 + 12 = 13)	13.			
3. 12th House Cusp for Higher LST	14.			
12th House Cusp for Lower LST	15.			
CUSP INTERVAL (14 – 15 = 16)	16.			
Look up No 3 & 16 in Table XI	17.			
12TH HOUSE CUSP (15 + 17 = 18)	18.			
4. ASC. for Higher LST	19.			
ASC. for Lower LST	20.			
CUSP INTERVAL (19 – 20 = 21)	21.			
Look up No 3 & 21 in Table XI	22.			
ASCENDANT (20 + 22 = 23)	23.			
5. 2nd House Cusp for Higher LST	24.			
2nd House Cusp for Lower LST	25.			
CUSP INTERVAL (24 – 25 = 26)	26.			
Look up No 3 & 26 in Table XI	27.			
2ND HOUSE CUSP (25 + 27 = 28)	28.			
6. 3rd House Cusp for Higher LST	29.			
3rd House Cusp for Lower LST	30.			
CUSP INTERVAL (29 – 30 = 31)	31.			
Look up No 3 & 31 in Table XI	32.			
3RD HOUSE CUSP (30 + 32 = 33)	33.			

Worksheets Zodiacal Longitudinal - Direct Motion Using Time Calculator

Planet: _____   Date: _____   Time: _____ (24 hr clock)

_____Hrs ____ mins divided by 24 =   (Put into memory M+)

From Ephemeris
Planets Position on Day After Date =   _____

Planets Position on Date Given **Subtract** = _____

                          Result = _____

Multiply by Memory (MRC)   Then hit hours button   Result   _____

                          ADD to position of GIVEN date   _____

                          Result _____

Worksheets Zodiacal longitudinal - Planet in Retrograde Motion

Planet: _____   Date: _____   Time: _____ (24 hr clock)

_____Hrs ____ mins divided by 24 =   (Put into memory M+)

From Ephemeris
Planets Position on Date Given   _____

Planets Position on Day **After Date Subtract -** _____

                          Result =   _____

Because Planet **is r** then the subtraction works the other way around taking the day AFTER position from the GIVEN Dates Position.

Multiply by Memory (MRC) Then hit hours button =   _____ (record)

          Planets Position Given Date   = _____

          SUBTRACT   - _____

                          Result   = _____

_____

Worksheets Zodiacal longitudinal Direct Motion but signs change.

Planet: _____   Date: _____Time: _____ (24 hr clock)

_____Hrs ___ mins divided by 24 =   (Put into memory M+)

From Ephemeris

Planets Position on **Day After Date** =   _____(Sign)

(Add 30 hours)

Planets Position on **Date Given Subtract** = _____(Sign)

                              Result = _____

Multiply by Memory (MRC) then hit hours button   Result   _____

                    ADD to position of GIVEN date   _____

                    Result   _____

Section 2

Examples, Notes and Worksheets

Moon Phase Calculation

Question 5 2009
What is the Moon Phase for Richard Branson's Chart?

Convert Moon and Sun to Zodiacal Degrees

Moon = 1° ♍ 35´ = 151° 35´

Sun = 25° ♋ 02´ = - 115° 02´

Result = 36° 34´ = the distance between Moon and Sun = **New Moon Phase**

Zodiacal Degrees

Zodiac Sign		Zodiacal Degrees
Aries	0°♈	= 0 °
Taurus	0° ♉	= 30°
Gemini	0° ♊	= 60°
Cancer	0°♋	= 90°
Leo	0°♌	=120°
Virgo	0°♍	=150°
Libra	0°♎	=180°
Scorpio	0°♏	=210°
Sagittarius	0°♐	=240°
Capricorn	0°♑	=270°
Aquarius	0°♒	=300°
Pisces	0°♓	=330°

To find the zodiacal degrees for 27°♑0° ♑ = 270° + 27° = **297**°
OR count back 3° from 0° Aquarius zodiacal degrees: 300° – 3° = **297**°

NEW MOON	The Moon will be 0° to 45° <u>ahead</u> of the SUN.
CRESCENT PHASE	The Moon will be 45° to 90° <u>ahead</u> of the SUN.
FIRST QUARTER PHASE	The Moon will be 90° to 135° <u>ahead</u> of the SUN.
GIBBOUS MOON	The Moon will be 135° to 180° <u>ahead</u> of the SUN.
FULL MOON	The Moon will be 180° to 135° <u>behind</u> the SUN.
DISSEMINATING PHASE	The Moon will be 135° to 90° <u>behind</u> the SUN or 225° –270°
LAST QUARTER PHASE	The Moon will be 90° to 45° <u>behind</u> the SUN - 270° – 315°
BALSAMIC PHASE	The Moon will be 45° to 0° <u>behind</u> the SUN.

VERTEX QUICK CALCULATION

From Natal Chart locate

MC for Southern latitudes
IC for Northern Latitudes

Use the **MC** for **Southern** Latitudes e.g., natal **MC** = 11°♋53´ at latitude 33°**S** 55´

<div align="center">OR</div>

Use the **IC** for **Northern** Latitudes e.g., **IC** = 29° ♋ 31´ at latitude 47°**N** 06´

Example Southern Latitude = 33°S 55´   **MC** = 11°♋53´
Co Latitude   90°   (Always = 90°)
Minus   - 34°   (rounded)
Equals   56°

Go to **Table of Houses** and locate at the top of one of the tables **11°♋ 53´** as the **MC**.

Closest Table = 11°♋58´ so use this Table

Go **down** the centre of the table until you get to **56x** of latitude. Then look **across** the table to the **ASC** column, find the degrees and check the sign by **looking up** the column and this is the Vertex 8°♎ 37 ´ **reverse sign** as it is Southern Latitudes to 8° ♈37´ . This is the Vertex to within one degree (Computer for this 8°♈33´)

Example Northern Latitude = 47 °**N** 06´ **IC** = 29° ♋ 31´
Colatitude   90° (always 90°)
Minus   47° (rounded)
Equals   43°

Go to **Table of Houses** and locate at the top of one of the tables **29°♋ 31´** as the **IC.**

Closest Table = 29°♋49´ so use this Table

Go **down** centre of the table until you get to **43°** of latitude. Then look **across** the table to the **ASC** column, find the degrees and check the sign by **looking up** the column and this is the **Vertex 24°♎ 45 ´.**

This is the Vertex to within one degree (Computer 24°♎ 28´)

VERTEX EXAMPLES

Richard Branson

Northern Latitude 51° N 28´

IC =   27° ♎ 27´

Colatitude   90°

Minus Birth Latitude   -   <u>51°</u> (rounded)

                Equals   =   39°

Answer = 4° ♑ 08

Chart 'A'

Southern Latitude   31° S 57 ´

MC = 23°♍ 50´

Colatitude   90°

Minus Birth Latitude   -   <u>32°</u>   (rounded)

Equals   =   58 °

Answer = 23° ♏ 37´   Reverse sign **=** 23° ♉ 37´

Part of Fortune Calculation

Method One

Convert the zodiac sign of the Sun, Moon and Ascendant to the corresponding number e.g., Aries = 1 Taurus =2 Gemini = 3 Cancer = 4 then enter degrees in columns and add and subtract according to the worksheets

Richard Branson

Diurnal chart:

ASC = 14°14′ ♌   MOON = 1°36′ ♍   SUN = 25° 02′♋

	Sign	Sign No	Degree	Minute
Asc	♌	5	14	44
+ ☽	♍	6	1	36
Sub total		11	16	20
−☉	♋	4	25	02
		6 **	21	18
⊗ = 21° ♍ 18′				

** to subtract 25° 02′ from 16° 20′ you need to 'borrow' 30° so you add '1' to the sign number to be subtracted so 4 becomes 5 giving a result of 6.

Chart B
Nocturnal chart:

ASC = 20°29′ ♊   MOON = 13° 14″ ♍   SUN =   1′53″ ♎

	Sign	Sign No	Degree	Minute
Asc.	♊	3	20	29
+ ☉	♎	7	01	53
Sub total		10	22	19
− ☽	♍	6	13	14
		4	9	08
⊗ = 9° ♋ 08 ′				

Method 2

Diurnal (Day) Chart Calculations

Part of Fortune = Asc + ☽ − ☉

Richard Branson

Ascendant	14° ♌ 44′	Convert to zodiacal degrees**	134° 44 ′
Moon	1° ♍ 36′	Convert to zodiacal degrees	+ 151°36′
		Equals (add together)	= 286° 20 ′
Sun	25° ♋ 02′	Convert and subtract	− 115 ° 02′
		Equals	= 171° 18′
		Convert back to sign and degrees Part of Fortune	= 21° ♍ 18′

** see page 33

Nocturnal (Night) Chart Calculations
Part of Fortune = Asc + ☉ − ☽

Chart B

Ascendant	20° ♊ 29′	Convert =	80° 29′
Sun	1° ♎ 53′	Convert =	+ 181° 53 ′
		Equals (add together)	= 262° 22′
Moon	13° ♍ 14′	Convert and subtract	− 163 ° 14 ′
		Equals	= 99 ° 08 ′
		Convert back to sign and degrees Part of Fortune	= 9° ♋ 08′

MIDPOINT

Section 2 Question 10

Convert planets/points to zodiacal degrees for ease.

Which Planet falls on the midpoint of Ascendant and Mars? (1 degree orb)

Position planet/point A = ASC at 14° ♌ 44´   convert = 134° 44´
Position planet/point B = Mars at 16° ♎ 40´   convert = + 196° 40´
Result   = 331° 24´

331° 24´ Divide by 2 = 165° 42´ convert back = 15° 42´ ♍

Saturn is at 15°49´♍

Saturn falls on the short arc midpoint of the Ascendant and Mars

Section 2

Worksheets

Part of Fortune Calculation

Name/Question: _____

Asc:_____   **Moon:**_____   **Sun:**_____

Diurnal chart:

	Sign	**Sign No**	**Degree**	**Minute**
Asc				
+ ☽				
Sub total				
− ☉				
⊗ =				

Nocturnal chart:

Name/Question: _____

Asc:_____   **Moon:**_____   **Sun:**_____

	Sign	**Sign No**	**Degree**	**Minute**
Asc.				
+ ☉				
Sub total				
− ☽				
⊗ =				

Part of Fortune
Diurnal (Day) Chart Calculations
Part of Fortune = Asc + ☽ − ☉

Ascendant		Convert =	
Moon		Convert =	+
		Equals (add together)	=
Sun		Convert and subtract	-
		Equals	=
		Convert back to sign and degrees Part of Fortune	=

Nocturnal (Night) Chart Calculations
Part of Fortune = Asc + ☉− ☽

Ascendant		Convert =	
Sun		Convert =	+
		Equals (add together)	=
Moon		Convert and subtract	-
		Equals	=
		Convert back to sign and degrees Part of Fortune	=

VERTEX WORK SHEET

Northern Latitude

IC =

Colatitude   90° 00

Minus Birth Latitude   -   _____   (rounded)

                        Equals   =

Answer = _____

Southern Latitude

MC =

Colatitude   90°00

Minus Birth Latitude   -   ____   (rounded)

Equals   =

Answer = _____   Reverse sign = _____

MIDPOINT WORKSHEET

Position planet/point A ____ = _____ convert = _____

Position planet /point B___ = _____ convert = +_____

Result = _____

Divide by 2 = _____

Convert back = _____ ANSWER

Position planet/point A ___ = _____ convert = _____

Position planet /point B ___ = _____ convert = +_____

Result = _____

Divide by 2 = _____

Convert back = _____ ANSWER

Position planet/point A___ = _____ convert = _____

Position planet/point B___ = _____ convert = +_____

Result = _____

Divide by 2 = _____

Convert back = _____ ANSWER

Section 3

Examples, Notes and Worksheets

Progressed Moon Table
Using Day Calculator (found at the end of this Section)

Definitions

- ACD **– Adjusted Calculation Date**   ED **– Ephemeris Date**   GMT **– Greenwich Mean Time**

- *Yearly motion* **the degrees travelled by a planet in a year – between two E.Ds.**

- *Monthly Motion* **is the Yearly Motion divided by 12 (months) to give the monthly motion of travel of a planet.**

- **The time between one ED and the next symbolises *ONE YEAR* by Secondary Progression.**

Moon Table for Richard Branson for 2009

Birth date 18th July 1950   GMT Date of birth same 18.7.1959

In the Day Calculator 18th July = Day 199

ACD given as 18th April.

To find ephemeris dates need

Year of Table required	2009
Subtract Year of birth	- 1950
Result =	59

GMT DOB = Day 199 + 59 years/days = Day 258

Convert the Day (258) back to the DATE (Ephemeris Date - ED)
ED= 15th Sept 1950

ED 15th Sept 1950 = ACD 2009 18th April

To calculate the movement of the Progressed Moon for the year in question
Find the movement of the moon **BEFORE** and **AFTER** the ACD date Progressed Moon

	Ephemeris Date	Moon
Moon Day Before ED	14th Sept 50	15°♎ 16´
Moon Position ED	15th Sept 50	29° ♎ 44
Moon One Day after ED	16th Sept 50	14° ♏ 14´

Moon's Monthly Motion

1. to calculate the Moon's monthly motion BEFORE the ACD of 2009

	Ephemeris Date	Moon
Moon Position ED less	15th Sept 50	29° ♎ 44
Moon Day Before ED	14th Sept 50	− 15° ♎ 16´
	Moon's Yearly Motion	= 14° 28´
Divide by 12	Moon's Monthly Motion	= 1°12´ 20″

2. to calculate the Moon's monthly motion AFTER the ACD of 2009

	Ephemeris Date	Moon
Moon One Day after ED less	16th Sept 50	14° ♏ 14´
Moon Position ED	15th Sept 50	− 29° ♎ 44
	Moon's Yearly Motion	= 14 ° 30´
Divide by 12	Moon's Monthly Motion	= 1° 12´ 30″

SUBTRACT 1° 12´ 30″ for each month for the Moon's monthly motion beginning at the ACD in April at **29° ♎ 44 ´** and enter result into March, February and January 09

Then **ADD** 1°12´ 20″ for each month for the Moon's monthly motion beginning at the ACD in April at **29° ♎ 44 ´** and enter results beginning at May until December.

Year	Month	Progressed Moon's Position
2009	January	26° ♎ 07´
	February	27° ♎ 19´
	March	28° ♎ 32 ´
ACD 18th	**April**	**29° ♎ 44 ´**
	May	0° ♏ 56´
	June	2 ° ♏ 09´
	July	3° ♏ 21´
	August	4° ♏ 33´
	September	5° ♏ 45´
	October	6° ♏ 58´
	November	8° ♏ 10´
	December	9° ♏ 22´

Using the Time Calculator

- Note the months you are calculating on the Moon Table.

- It is helpful to begin at the ACD as you need to calculate from there.

- Note the position (s) of the Moon that corresponds with the ACD (s) into the Table.

- Clear the Calculator's memory then put the Monthly Motion in the calculator's memory (M+)

- Clear the Calculator's screen.

- Enter in the Moon's Position on the ED

- Press + and then the memory (MRC) Key

- Press Equals

- Record the result in the months column and repeat the process recording the results until you the desired month.

- Or the NEXT ACD (ED)

Adjusted Calculation Date

Calculate the Adjusted Calculation Date for a person born 8th May 1977 3:20am in Perth WA Time Zone AWST – 8:00 hours NO daylight saving in effect.

First you need to find the GMT date and Time of Birth

1. Clock time of birth use 24-hour clock		3	20	00
2. Minus daylight saving if in effect *Always minus daylight saving.*	**-**			
3. Equals Standard time of birth	**=**	3	20	00
4. Standard Time Zone difference to GMT West ADD + / East MINUS -	**-**	8	00	00
5. GMT Time of birth (*use for 8*)	**=**	19	20	00
6. GMT **Date of birth** (Check day same/day before/day after at GMT)	**GMT date Birth = 7th May 1977**			

Then to find the ACD using the GMT day and time of birth

Method One

Sidereal Time GMT DOB   7th May 1977   14: 58: 53   (borrow 24 hrs)
          Subtract GMT Time of birth   - 19:20:00
                              RESULT   = 19: 38: 53

Go back in Ephemeris to find the sidereal time listed as close as possible to 19: 38: 53
ACD = 16th July

Method Two
24:00 hours minus GMT time of birth   24:00 – 19:20:00 = 4:40:00
Add 4:40:00 hours to sidereal time   4:40:00 + 14:58:53 = 19: 38: 53

Go back in Ephemeris to find the sidereal time listed as close as possible to 19: 38: 53

ACD = 16th July

SOLAR ARC DIRECTIONS

1. Find the **Sun's position** in the ephemeris in degrees, minutes and seconds for the **ephemeris date (ED) required**.

2. **Convert** the needed position to Zodiac Degrees for ease.

3. **Convert** the Sun's natal position to Zodiac Degrees and **subtract** it from the result of Step 2.

4. The result is the Solar Arc (until you finish calculating it is easier to leave it in Zodiac Degrees)

5. Convert positions back.

6. The Solar Arc will always approximately correspond to the age in years as the Sun moves around 1x a day so 25 years = 25 degrees. (Remember one day to a year again!)

7. To find the Solar Arc MC or Ascendant you calculate the solar arc and add it to the natal positions.

Example

Section 3 Question 5
At what age to the nearest year did Solar Arc Jupiter conjunct Richard's Natal Midheaven?
GMT Date Birth = Day 199 (using Day calculator)

Natal Sun   = 25° ♋ 02´   = 115° 02´
Natal MC   = 27° ♈ 27´   = 27° 27´
Natal Jupiter = 6° ♓ 43   = 336° 43´

Therefore, Jupiter needs to have progressed by Solar Arc to 27° ♈ 27´
Natal MC   27° 27´ (Borrow 360 °)
Less Natal Jupiter   - 336° 43´
Solar Arc Needed   =   50°44´
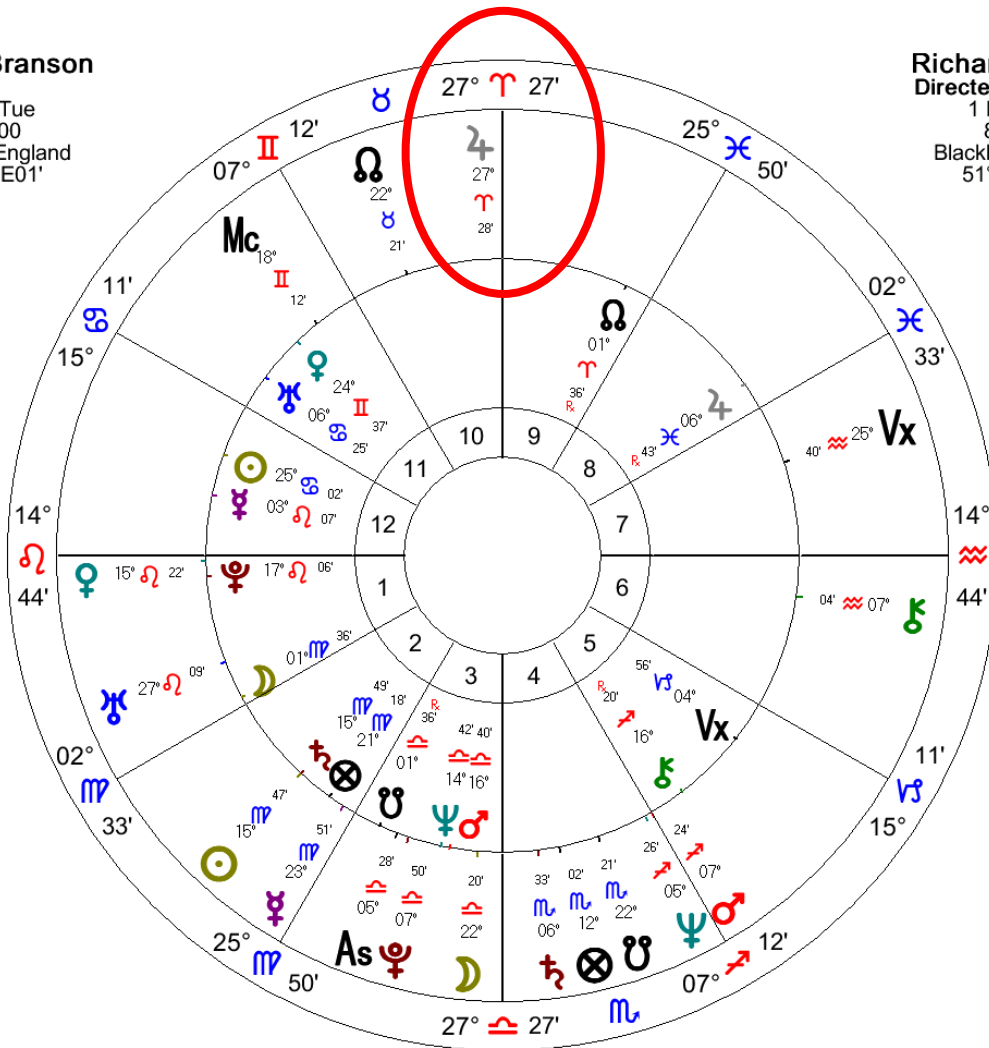Natal Sun   + 115° 02´
Sun's position when SA reached   = 165°46´ = 15°♍46´

Date Sun = 15°♍46´ = 9th Sept = Day 252 less Day 199 = 53

Year of birth 1959 + 53 = 2003

Age: 52 years 9 months old when applying ACD 18th April as aspect occurred in May 2003 before his birthday in July 2003.

Section 3

Worksheets

Plus

Day Calculator

ACD WORKSHEET

DOB: _____   Clock Time of birth: _____ (24 hr)

Place: _____   Daylight Saving in Effect? YES/NO

Standard Time Zone: _____

Latitude (circle): NORTH/SOUTH   Longitude: EAST/WEST

Clock Time of Birth   = _____

Subtract Daylight Saving (is ALWAYS subtracted) - _____

                                    Result = _____

Standard Zone Time West ADD East MINUS *+/-*   _____

                                    Result = _____

**Southern Latitudes Check if the day before the same day as DOB or the Previous Day

MT DOB = _____   GMT Time of Birth = _____

Sidereal Time GMT DOB   (from Ephemeris)   = _____

Subtract GMT Time of birth (above)   Minus - _____
(You may need to borrow 24 hrs to do the subtraction)
                            RESULT = _____

Checking **back** in the ephemeris until you find the **Result time** as closely as possible in the Sidereal Time Column

The date that matches best is the ACD e.g., 4th April and that is the ACD.

ACD = _____

Progressed Moon Table Worksheet

Using the Day Calculator

Definitions

- ACD = **Adjusted Calculation Date** ED **= Ephemeris Date**   GMT **= Greenwich Mean Time**

- *Yearly motion* **the degrees travelled by a planet in a year – between two E.Ds.**

- *Monthly Motion* **is the Yearly Motion divided by 12 (months) to give the monthly motion of travel of a planet.**

- **The time between one ED and the next symbolises *ONE YEAR* by Secondary Progression.**

Moon Table for _____

Birth date; _____   GMT Date of birth:_____

In the Day Calculator = Day _____

ACD =

To find ephemeris dates need

Year of Table required	
Subtract Year of birth	
Result =	

GMT DOB = Day ___ + ____ years/days = Day ____

Convert the Day (___) back to the DATE (Ephemeris Date - ED) ED= _____

ED = _____ = ACD _____

To calculate the movement of the Progressed Moon for the year in question
Find the movement of the moon **BEFORE** and **AFTER** the ACD date Progressed Moon

	Ephemeris Date	Moon
Moon Day Before ED		
Moon Position ED		
Moon One Day after ED		

Moon's Monthly Motion
    1. To calculate the Moon's monthly motion BEFORE the ACD

	Ephemeris Date	Moon Position
Moon Position ED less		
Moon Day Before ED		
	Moon's Yearly Motion	
Divide by 12	Moon's Monthly Motion	

2. To calculate the Moon's monthly motion AFTER the ACD

	Ephemeris Date	Moon Position
Moon One Day after ED less		
Moon Position ED		
	Moon's Yearly Motion	
Divide by 12	Moon's Monthly Motion	

Year	**Month**	**Progressed Moon's**
	January	
	February	
	March	
	April	
	May	
	June	
	July	
	August	
	September	
	October	
	November	
	December	

Zodiacal Degrees

Zodiac Sign		Zodiacal Degrees
Aries	0° ♈	= 0 °
Taurus	0° ♉	= 30°
Gemini	0° ♊	= 60°
Cancer	0° ♋	= 90°
Leo	0° ♌	=120°
Virgo	0° ♍	=150°
Libra	0° ♎	=180°
Scorpio	0° ♏	=210°
Sagittarius	0° ♐	=240°
Capricorn	0° ♑	=270°
Aquarius	0° ♒	=300°
Pisces	0° ♓	=330°

To find the zodiacal degrees for 27° ♑

0° ♑ = 270° + 27° = **297°**

OR count back 3° from 0° Aquarius zodiacal degrees:

300° − 3° = **297°**

DAY CALCULATOR

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29	**	88	119	149	180	210	241	272	302	333	363
30	30		89	120	150	181	211	242	273	303	334	364
31	31		90		151		212	243		304		365

** **Add a day for leap years especially if working with progressions**

Reference Books Required

Ephemerides 1900- 2000 and 2000 -2050 at Midnight

The **American Book of Tables** that uses Placidus Tables of Houses
OR
Michelson Book of Tables that includes Placidus Tables of Houses

International Atlas or alternate reference source for **Time Zones and Daylight Saving**

Calculators – most scientific calculators will allow you to calculate in degrees and seconds.

There are also calculators that have a Hours/Minutes/Seconds function including the CASIO J-120TV that has been available at stores like Big W and Kmart for around $20.

Time calculators and calculators need practice!

SECTION 4 - TOTAL 20 MARKS

Section is multiple choice questions and you need to answer 20 questions of a possible 25. No working out sheets are required for Section 4. Helpful references are your class notes, an astrological encyclopaedia or dictionary and an ephemeris. The questions below are from the 2018 Calculation Exam and the answers are on Exam Answers that are on the Exam Pages of the website.

It can be good practice to answer these and then check the answers.

1. The Moon's exaltation occurs in what sign?
   a. Cancer
   b. Capricorn
   c. Taurus
   d. Pisces

2. The maximum separation between Mercury and the Sun in a geocentric chart is what degree?
   a. 88
   b. 48
   c. 28
   d. 120

3. The Lunar Nodes return to their natal place for the first time:
   a. between 40 and 41

   b. between 18 and 19

   c. between 27 and 28

   d. in the first year of life

4. The Sun crosses the Celestial Equator at:
   a. The Equinoxes

   b. Mid-point of the Fixed Stars

   c. Zero degrees Aries in the Northern Hemisphere and Zero degrees in the Southern Hemisphere

   d. The Solstices

5. Which aspect is NOT a 12th Harmonic aspect?
   a. Conjunction

   b. Sesquiquadrate (sesqui-square)

   c. Quincunx (inconjunct)

   d. Sextile

6. The difference between the Sidereal and Synodic revolution of the Moon (New Moon to New Moon) is approximately:
   a. 2 hours

   b. 2 days

   c. ¼ day per year

   d. 18 years

7. The entrance of the Sun, Moon or planet in a sign is known as:

   a. A hyleg

   b. An interception

   c. An ingress

   d. A culmination

8. Which of the following pairs of planets are in mutual reception?
   a. Venus in Libra and Mars in Aries

   b. Jupiter in Pisces and Saturn in Aquarius

   c. Moon in Gemini and Mercury in Cancer

   d. Sun in Capricorn and Mars in Leo

9. If two planets are parallel one another , they are:
   a. Conjunct each other in zodiacal longitude

   b. The equal distance North sor South of the Equator

   c. Equi-distant from the Ecliptic

   d. Both in signs of their fall

10. An aspect of 72 degrees is known as:
    a. Septile

    b. Novile

    c. Quintile

    d. Decile

11. Which planet spends the greatest amount of time going retrograde
    a. Pluto

    b. Saturn

    c. Uranus

    d. Mercury

12. The Vertex/Antivertex axis in a Birth chart is the intersection of which two great circles?
    a. The horizon and the Ecliptic
    b. The prime vertical and the Ecliptic
    c. The prime meridian and the Ecliptic
    d. The celestial equator and the Ecliptic

13. What is the rate of Precession that exists between the Sidereal Zodiac and the Tropical Zodiac for each year?
    a. 4 minutes
    b. 3 minutes 54 seconds
    c. 10 seconds
    d. 50.25 seconds

14. A person is turning 40 this year, which transiting aspect is NOT possible for them to experience?
    a. Uranus opposite Uranus
    b. Neptune square Neptune
    c. Pluto square Pluto
    d. Saturn square Saturn

15. In Roman mythology, the god Uranus was the father of:
    a. Jupiter
    b. Pluto
    c. Saturn
    d. Mars

16. In Medical Astrology the stomach is ruled by:
    a. Cancer
    b. Taurus
    c. Virgo
    d. Scorpio

17. The time it takes the Vernal Equinox to completely precess through the zodiac (Precession of the Equinoxes) is known as the "Great Year". The Great Year is approximately:
    a. 2160 years
    b. 365 days
    c. 25,800 years
    d. 12,000 years

18. The Tropic of Cancer is at what latitude:
    a. 60 degrees N
    b. 22 degrees 25' S
    c. 23 degrees 30'N
    d. 30 degrees S

19. Jupiter is said to be dignified in what house?
    a. Tenth house
    b. First house
    c. Eleventh house
    d. Ninth house

20. An intercepted sign is one that:
    a. Contains no planets or nodes.
    b. Is totally contained within a house.
    c. Contains its ruling planet.
    d. None of the above

21. During 2017 what aspect was Saturn making to Uranus?
    a. Square
    b. Quincunx
    c. Sextiles
    d. Trine

22. Using the derived house system, which house would represent your daughters' husband?
    a. 7 houses
    b. 10 houses
    c. 9 houses
    d. 11 houses

23. A person has Jupiter at 0 degrees Aquarius, Sun at 0 degrees Libra, and Saturn at 29 degrees Taurus. The aspect pattern formed is known as?
    a. Grand Trine
    b. Yod
    c. Kite
    d. T square

24. When astrologically examining a political election, you would use:
    a. Relationship Astrology
    b. Mundane Astrology
    c. Horary Astrology
    d. Electional Astrology

25. The first Jupiter return occurs:
    a. Between ages 14 and 15
    b. Between ages 27 and 29
    c. Between ages 38 and 42
    d. Between ages 11 and 12

END OF SECTION 4

END OF EXAM