36 Lyn
7915 8 9 10.5 +43 26 5.3 A1 +20.98

12714
6023

15790

59

-0022 -036 N30

-0020 ±1.5 -040 ±1.3 GC → N30

-2644 → 6.23
0.64 0.8"

1 CW -6023 | 0460
0847 -7975 | -0007
-0009

R.A.	:	9.150
DEC.	:	43.450
R.A.	:	0.000
DEC.	:	0.000
TANCE	:	0.000
DULUS	:	10
VEL.	:	0.000
1 (U)	:	-0.686
2 (U)	:	-0.023
3 (U)	:	0.727
dU	:	0.000
U	:	0.000
q1 (V)	:	-0.004
q2 (V)	:	1.000
q3 (V)	:	0.027
dV	:	0.000
V	:	0.000
q1 (W)	:	0.727
q2 (W)	:	-0.016
q3 (W)	:	0.686
dW	:	0.000
W	:	0.000

-0187 [illegible]

R.A.	:	10.600
DEC.	:	-55.310
PM. R.A.	:	0.000
PM. DEC.	:	0.000
DISTANCE	:	0.000
MODULUS	:	10
RAD. VEL.	:	0.000
q1 (U)	:	-0.839
q2 (U)	:	0.481
q3 (U)	:	-0.255
dU	:	0.000
U	:	0.000
q1 (V)	:	0.244
q2 (V)	:	-0.087
q3 (V)	:	-0.966
dV	:	0.000
V	:	0.000
q1 (W)	:	0.487
q2 (W)	:	0.872
q3 (W)	:	0.044
dW	:	0.000
W	:	0.000

- 5627

4169 10 35.5 -58 28 AOIC

52207 9 55.1 480 -39 4062.58

14622 -781 304

5938

+046

-0215

-55598

Large Adapter & Interfaces

Van Mal

+3.5

32.324 #.5 -0057 -008 24.10 5% 36 23.74

14 46 -0018 -005

32.339 -0012 -002 23.83 40.88

+15 -0015 -006 -21

414 -0013 24.04

-0118

-0095 +003

E = 50

V_0 = 295

32375

120

395

23.66 20.05

-21

95

תרגיל בית 1

שאלה 1

א. $\Delta H = \Delta U + \Delta(PV)$

$\Delta H = \Delta U + P\Delta V$

$\Delta H = \Delta U + nRT$

$\Delta H = -285.8 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -285.8 + 2.477$

$\Delta H = -283.323 \text{ kJ/mol}$

ב. $\Delta H = \Delta U + nRT$

$\Delta H = -1411 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1411 + 2.477$

$\Delta H = -1408.523 \text{ kJ/mol}$

ג. $\Delta H = \Delta U + nRT$

$\Delta H = -1560 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1560 + 2.477$

$\Delta H = -1557.523 \text{ kJ/mol}$

ד. $\Delta H = \Delta U + nRT$

$\Delta H = -1367 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1367 + 2.477$

$\Delta H = -1364.523 \text{ kJ/mol}$

ה. $\Delta H = \Delta U + nRT$

$\Delta H = -1299 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1299 + 2.477$

$\Delta H = -1296.523 \text{ kJ/mol}$

שאלה 2

א. $\Delta H = \Delta U + nRT$

$\Delta H = -1411 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1411 + 2.477$

$\Delta H = -1408.523 \text{ kJ/mol}$

ב. $\Delta H = \Delta U + nRT$

$\Delta H = -1560 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1560 + 2.477$

$\Delta H = -1557.523 \text{ kJ/mol}$

ג. $\Delta H = \Delta U + nRT$

$\Delta H = -1367 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1367 + 2.477$

$\Delta H = -1364.523 \text{ kJ/mol}$

ד. $\Delta H = \Delta U + nRT$

$\Delta H = -1299 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1299 + 2.477$

$\Delta H = -1296.523 \text{ kJ/mol}$

שאלה 3

$\Delta H = \Delta U + nRT$

$\Delta H = -1411 + 1 \cdot 8.314 \cdot 298 \cdot 10^{-3}$

$\Delta H = -1411 + 2.477$

$\Delta H = -1408.523 \text{ kJ/mol}$

0032 ± 65

-006 ± 4.6

114

27.166 12.7 $-0028 \quad +004$

25

20.62 20

$-0022 \quad +003$

20.67

27.132 20.41 20.02 20.20

27

78

159 20.38

27.226

$+29$

27.255 39.14 20.48

-9

20.57

4196 10 40.5 -6.4 12 B4 IV

92538 4.80 -14 -57 +04 4.7

-082 117 371 2.676

-7 +19 +24.2

102 377
204
581

-004
000
+008

-0018
-0032
-0027

-2.0
6.7

27.224 1904.8 15.68 1905.3
181 -36
.460 16.04

(65.84)

27.380 27.272 15.58 15.97 1941.54
+023 24 -.2 -.09
27.403 296 16.23 16.06
-57 -02

−0032 ± 34 +0008 ± 25

27.324 −0026 +001 15.84 5.3
98 0017 +004 −36
16.22

10 — 48 27272 (64.84) 15.48
−18
16116

27280 (41.54) 15.47
−9
1606

-0032 ± 5.5 -006 ± 4.6

-0026 -0027 $+0033$ $+0036$

92664 10 38.5 −64 50 5.8 Aop +29.78

14685 5.49 −0.13 +1.28 1 26" −0026 +0345

6652 5.51 −0.17 (1.26)

27.199 1912.7 −64 50 20.92 1909.0

+25

4/80 119 20.67

20411.7042 20.20 318

27432 27.226 −29 −3 $G_L \to N30$ 20.48 1939.16

23 249 −23 −0 new −9

15T 20.4K −0026 −001 20.57

−069 −016 10 +12.8

150 −40

−7.1

−844	+419	−334	+0640 −0056	+0702	+8.0 −9.9
+258	−229	−939	−0196 +0032	−0155	−2.2 −27.9
+470	+874	−86	−0326 −0122	−0400	−3.0 −2.6

-22.5

4250 10 50.2 -56 58 5.25 BG IG

178 003 3 56 2537

-78 30.5 $37

250 3015

27.604 12.2 -0005 -006 28.07 7.5

14 -0012 -006 26

623 -0007 -002 27.81

108 27.575 27.76 3882

-57 +15 -0007 -004 -27

-0006 +0016 28.00

4.5 540 -0057

76 -0035 +006

10.55

-22.5

27.547 2762 70.42 7062

+14 -31

.583 2293

10.800
-57.000
-4.500
6.000
10.550
1288
-22.500

-0.851
0.436
-0.293
22.286
35.310

0.276
-0.104
-0.955
-6.170
13.550

0.447
0.894
0.032
20.225
25.341

-00323 +0079

IC2640 + -019 / +012 10 41.4 -64 08 7(4) 830 24.4

+6
+13
ρ = +26.0

5.90

-0108	+0067	87 32	-0067 +.0193	+242 ±1.2
-0088		20 23	-0137 +0146	+24.0
	+0109	10 59	+0059 +0074	+12.13
		44 26	-0210 +0184	+25.5
		109 24	-0100 +0141	+32.4
		62 69	-0185 +0092	+160

-009 +011

+24.5

-0153 +015

-015 +014

32 +33
-0023 +007
-00262 +0103
+21 +43
-00241 +0145

-002 +014

-064 091 3002674 4.85 -15 -63 +05 B3 IV

4222 (073) 312/146/458 10 458 -64 07 B3 IV

93607

14458

HD 1454

IC 2602

-078 +092 +306 (252) 2.658 (B3)

184/490

4.7

+160

+128

-018 +009 ± (7.0)

-2.3/7.0

487 -063 096 301 2.674

118

77

-0016 = 5.7

+1012 = 4.3

1.670
1.234
1.677
6.42

7014

1663
23
686

4204

10.24 - 9 = 1.24
10.38 - 10 = .38
10.8 - 1100

10.63 - 9 = 10.7

42.45 10 42.3 −6.3 42

93.4 + 144

63 123

80

18.102 9.4

+12

27

17.972

18,003

18.04

23

064

0030 ± 43 +003 ± 040

0030 +002

0038 +004

64.50

48.53 53.47 6.7

−13

5410

53.81

15

5354

4404

53.70

−9

53.74

4214

63.1646

9354

27.574 117 688

11.2 −0033 +003 −4110 5.8

−0030

22.466 27 673

20.04

3.13 67 348

18 324

22575 4147

28 568

3.30 4 3.34

IC2602 10 41.2 −64 08

4148
Clear
0724 +0049

" −0088 ±0010
−0035 ±0015
1F5P

ρ = +24.3 hu/sec
8 stars

+5.5
−2.2
−2.9

+5.4	+1.1	−8.0	−1.4
−1.6	−0.4	−22.8	−25.0
−3.1	+2.2	−2.0	−2.9

−843 +424 −331
+255 −228 −940
+474 +877 −084

+0351 ±0070
−0106 −0034
−0148 ±0146

±0421 dU
−0144 dV
−0035 dW

X = −50
Y = −141
Z = −13

11.000
56.660
146.500
37.500
1.600
21
-15.600

-0.860
0.131
0.493
-305.054
-14.057

0.307
0.904
0.296
278.070
1.186

0.407
-0.406
0.818
82.899
-11.033

4239.000*

11.000*
5.000*
-70.000*
-36.000*
-0.026*
-0.005*
7.050*
257.040
7.400

0.099
-0.409

22.537

-0.032
-0.897

-14.925

-0.069
-0.169

-19.096

Burma

4295 10 58.8 +56 39 A I V

95418

15145

2.38 -01 -03 J

-007 164 1082 2880 atal
-004 148 1.054 2880 2 SPC
005 133 1.090 2.884 JG stu
-005 148 1090 2.882

147
294
1.091
1385
1.376

dont use
656
-002 w
55=w

10.2

110
-1 +5.6
+0073 +0333 W 50
672 +0334

0803

Don't 51 +08 05 +037.5

184
20

11
+5.66
+146.1
+32.5
1.6
-15.6

4185 NGC 2602 10 38.5 -64 50 $m_v = 5.9$ v_0 [2.6]

5.40 622

92664 5 52 -17 -56 C $m_v =$

+14 +8 (154) -074 118 897 2.707 S

105 412 2764

210 062

622

-0024 -0045 GC+

-0030 -0010 41 (7.2)

-0195 +297

-017 -1000

m_v (Stwg) = -1.7

m_v Clust -0.5

```
4185.000*

  10.000*
  38.500*
 -64.000*
 -50.000*
  -0.017*
   0.003*
   7.200*
 275.423
  29.700

   0.074
  -0.335

  10.382

  -0.024
  -0.937

 -34.344

  -0.026
  -0.099

 -10.133
```

-22.4

4338 11 065 -6.1 40 B4 I G

96919 11.1
15331 -6.166
-35
+5
10.15

-22.4 -22.41 ~~+068 +241~~

5.12 +0.24 -0.44 ② ξ_{61}

.256 ~~+068~~ +241 2.582 ② ξ_{55}

136
427 103
309

-40 3y ±3.5

-0013 +001 N30

222 001 337 2534
3 30
216

+0218
+134

-0173 +0044

+46 -10

-0123

-0084003

E = +41

V_0 = 3.9

mv -4.35

10.25

1378 11 0550 -70-36 B2 III

5.5 -06-43 C

28.522 115 -00-444 23.56 010

11 444-010-0000

283 0000-444

0000-000

28.411 444-000-333 40.45

0000-000

0000-000

28.59 333 4471 4564

Observer: – /

STAR	MAGN	TIME

4338.000*
11.000*
6.500*
-61.000*
-40.000*
-0.008*
0.003*
10.250*
1122.018
-22.400
0.038
-0.361
50.447
-0.015
-0.932
4.536
-0.001
-0.025
-1.047

Comments:

-0040 ± 8.7 -007 ± 6.3

-0029 -0.13

44.679 1504.6 -0020 7.12 1500.3

182 $+35$

$.861$ 0.79

-0030 -007

00.3 1944.4

40.017 44.76 $-.19$ 52.66 1526.83

4.64 $+.018$ $+05$ 8.10

44.712 -019 -31 076

$+20$ 00.75 026

$.811$ 44.779 -02 102

-15 -082 -9

796 1.11

-065

-34

3982 — 01707 +0009

3981 10 05.7 +12 12

E=102

+3.5

1.35 -11 -86 B7E

1.79 (245)

2-6 914

-1508

24 4005

-01696 +0024 FIX4

+3

-01700 +003

-0240

$ 2.723

-456 -785

28B -625

3982.000*

10.000*
5.700*
12.000*
12.000*
-0.240*
0.003*
2.450*
30.903
3.500

0.914
0.453 +13

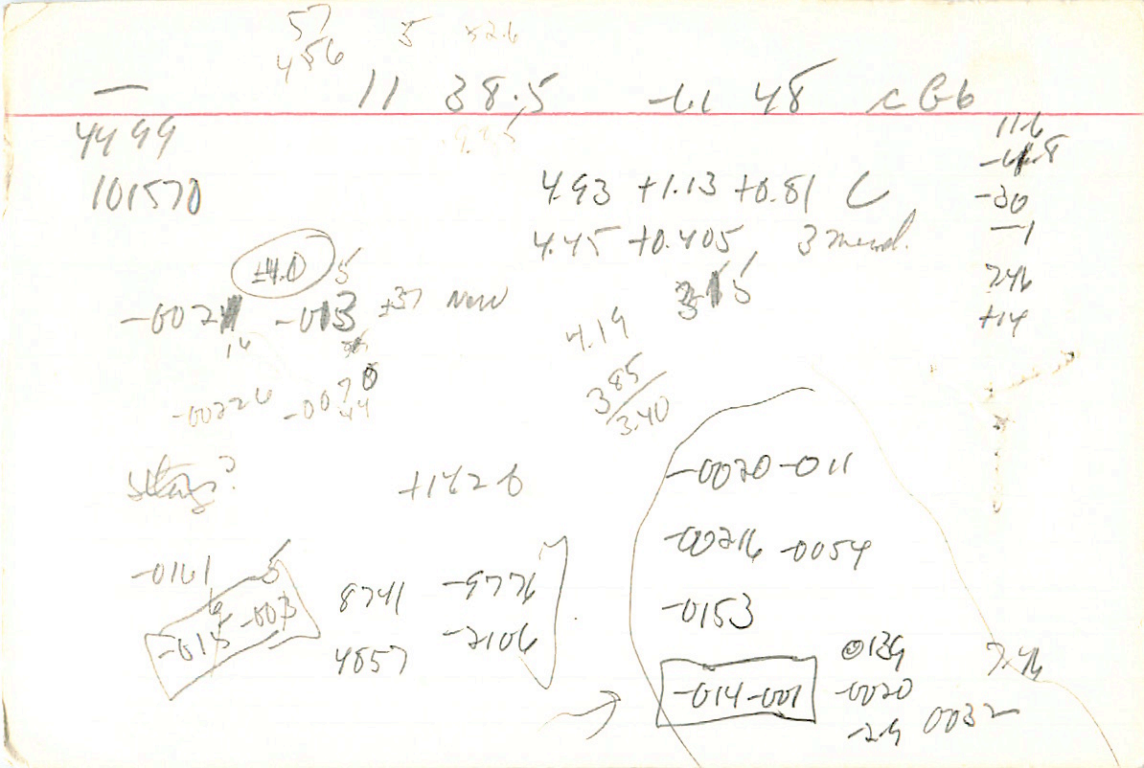
29.830

-0.170
-0.476 +14

-6.905

-0.656
0.754 +22

-17.631



$31.105 \quad 1512.1 \quad -0024 \pm 6.1 \quad -005 \pm 3.7$

$090 \quad -0018 \quad -021$

$31.195 \quad -0021 \quad -013 \quad 4572 \quad 1605.4$

$-0020 \quad -011 \quad 22$

4550

31.131

$+14$

31.145

-050

$31.054 \quad (30.81) \quad 45.93$

$24 \quad -30$

$080 \quad 4623$

$4603 \quad 1540.68$

-20

4623

-73

31.11

$45.4 \quad 1546.15$

31.11

-0.16

$31.[illegible]$

$454 \quad 1546.03$

-79

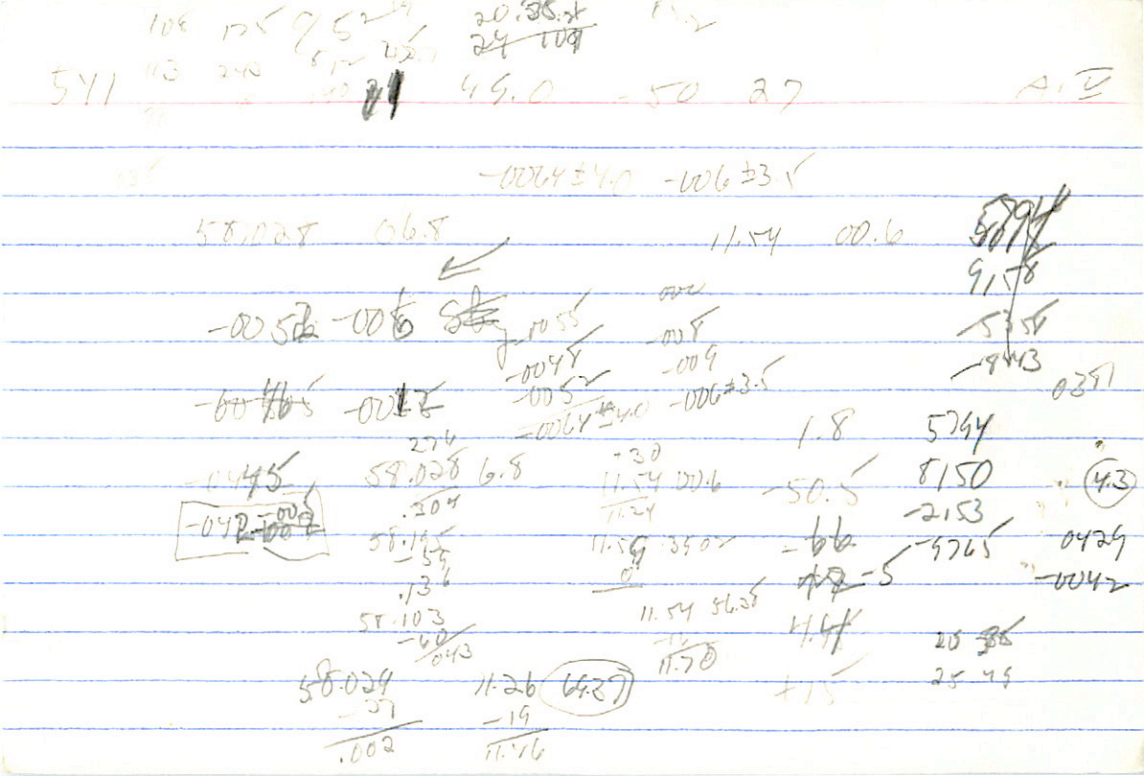
46.29

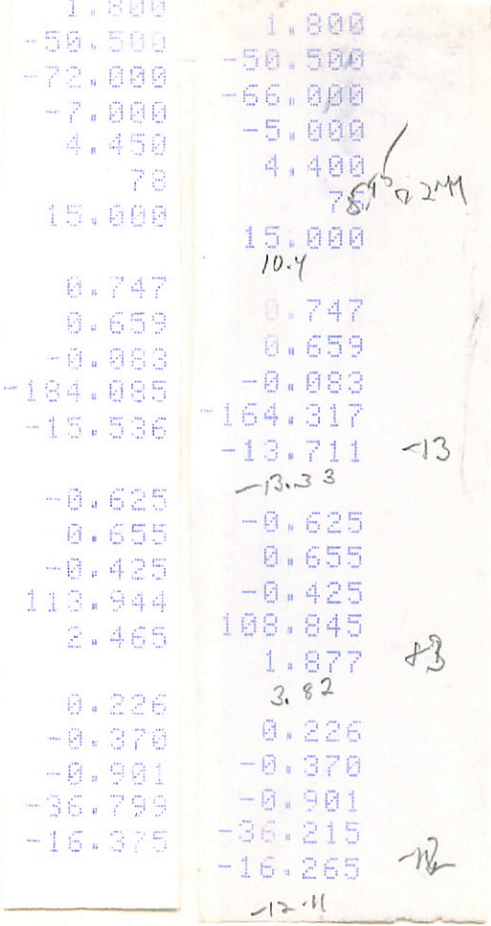
Observer: Date: / - /

STAR ME

R.A. :	11.600
DEC. :	-61.800
PM. R.A. :	-30.000
PM. DEC. :	-1.000
DISTANCE :	7.450
MODULUS :	309
RAD. VEL. :	14.000
q1 (U) :	-0.875
q2 (U) :	0.250
q3 (U) :	-0.415
dU :	57.610
U :	12.000
q1 (V) :	0.396
q2 (V) :	-0.121
q3 (V) :	-0.910
dV :	-26.059
V :	-20.793
q1 (W) :	0.278
q2 (W) :	0.961
q3 (W) :	-0.007
dW :	-23.236
W :	-7.281

Comments:




1.800
-50.500
-72.000
-7.000
4.450
78
15.000
0.747
0.659
-0.083
-184.085
-15.536
-0.625
0.655
-0.425
113.944
2.465
0.226
-0.370
-0.901
-36.799
-16.375
1.800
-50.500
-66.000
-5.000
4.400
78
15.000
10.4
0.747
0.659
-0.083
-164.317
-13.711
-13
-13.33
-0.625
0.655
-0.425
108.845
1.877
+3
3.82
0.226
-0.370
-0.901
-36.215
-16.265
-12.11

11.870
54.000
160.000
12.500
1.900
24
-14.500

-0.875
0.311
0.372
-371.522
-14.306

0.431
0.850
0.303
242.352
1.426

0.222
-0.425
0.878
73.920
-10.951

9625

12 063 -40 57

105 -0027 ±6.0 -0 14 ± 46

18.509 11.1 -002 -019 11.52 6.7

19014 -0019 -023

18529 -0021 +21 10.92

14 7053 11.92

543 -18

12.10

18.975 41.20 11.42

-14 -31

961 11.73

18.925 55.44 11.64

-5 -43

920 12.1

.0047 ± 2.5 .024 ± 24

.0048

200
29.101 2.5 .0050 26.46 37 .026

1.11

29.201 .0049 25.35 .025

.023

28.990 20.11 26.90

8 -20

998 27.10

28.996 6706 26.61

4 -33

29.002 26.94

29.122 41.48 26.33

.14 +10

136 26.23

Observer: / – /

STAR		TIME

Comments:

5.75 −14 1.26 +04 12

4648 12 10.8 −28 38 B4 IV

106231

−058 079 427 2.641

068 439

136

575

−47.0

5.4

−035 −012

−3.05

8.65

−00288 −0205

−002836 −0123

−0318

−030 −013

9580 −4635

2866 −4491

0326

−0014

−1.25

0064101

4669 12 144 −65 24 40

No unit

(2) Eq

6.07 +6 172 501 2884
124 900
348
1248

+1.0

5.5 ± 0.5

3.5 ± 0.5

22.730 3.5

53.77 55.5

1.757

20.492

2281

232

22.514

53

2541

83.77

30.30

54.07

+11

53.96

-36

54.32

4675 12 15.0 -35 49 LATAOS

-040 -010
-039 -006

-004 -016
-0394 -013
-0482

9641 -8815
2467 -476

1225
-358
-48
-6
565
46

-016 165 1001 2506
160 1004

12.250
-35.800
-48.000
-6.000
5.650
135
6.000

-0.867
0.320
-0.383
150.808
18.043

0.482
0.334
-0.810
-98.357
-18.131

0.131
0.887
0.442
-49.440
-4.011

101570 // 38.5 -61 49 CG +14.28

16037 4.94 +1.14 +2.08

7093