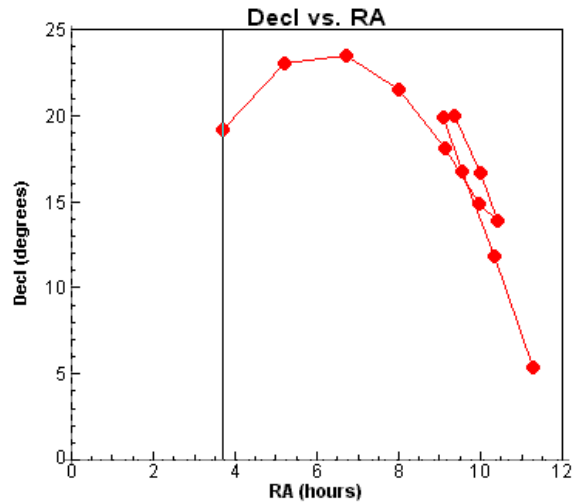


PHYSICS EXERCISE ON KEPLER'S LAWS

Name _____ Due Date ____/____/20____ Box _____

These data show the position of Mars over a year. Plot the position of Mars in the sky and draw a smooth curve connecting the points.

Date	Declination degrees (vertical)	Right Ascension hours (horizontal)
07/1/94	19.2	3.7
08/1/94	23.0	5.2
09/1/94	23.5	6.7
10/1/94	21.5	8.00
11/1/94	18.1	9.14
12/1/94	14.9	9.97
01/1/95	13.9	10.4
02/1/95	16.7	10.0
03/1/95	20.0	9.35
04/1/95	19.9	9.11
05/1/95	16.8	9.53
06/1/95	11.8	10.34
07/1/95	5.4	11.3



As the inset shows, the planet seems to move backward relative to the fixed stars as viewed from the Earth. Both Mars and the Earth are moving during the time these observations are made. The apparent backward motion arises because the perspective from Earth changes faster than the position of Mars changes.

Attach your own graph, made in Graphical Analysis, to the back of this assignment sheet and sign the pledge.

I Pledge My Word and Honor that I have neither Given, nor Received, Any Help on this Examination.

Signed _____ Dated _____