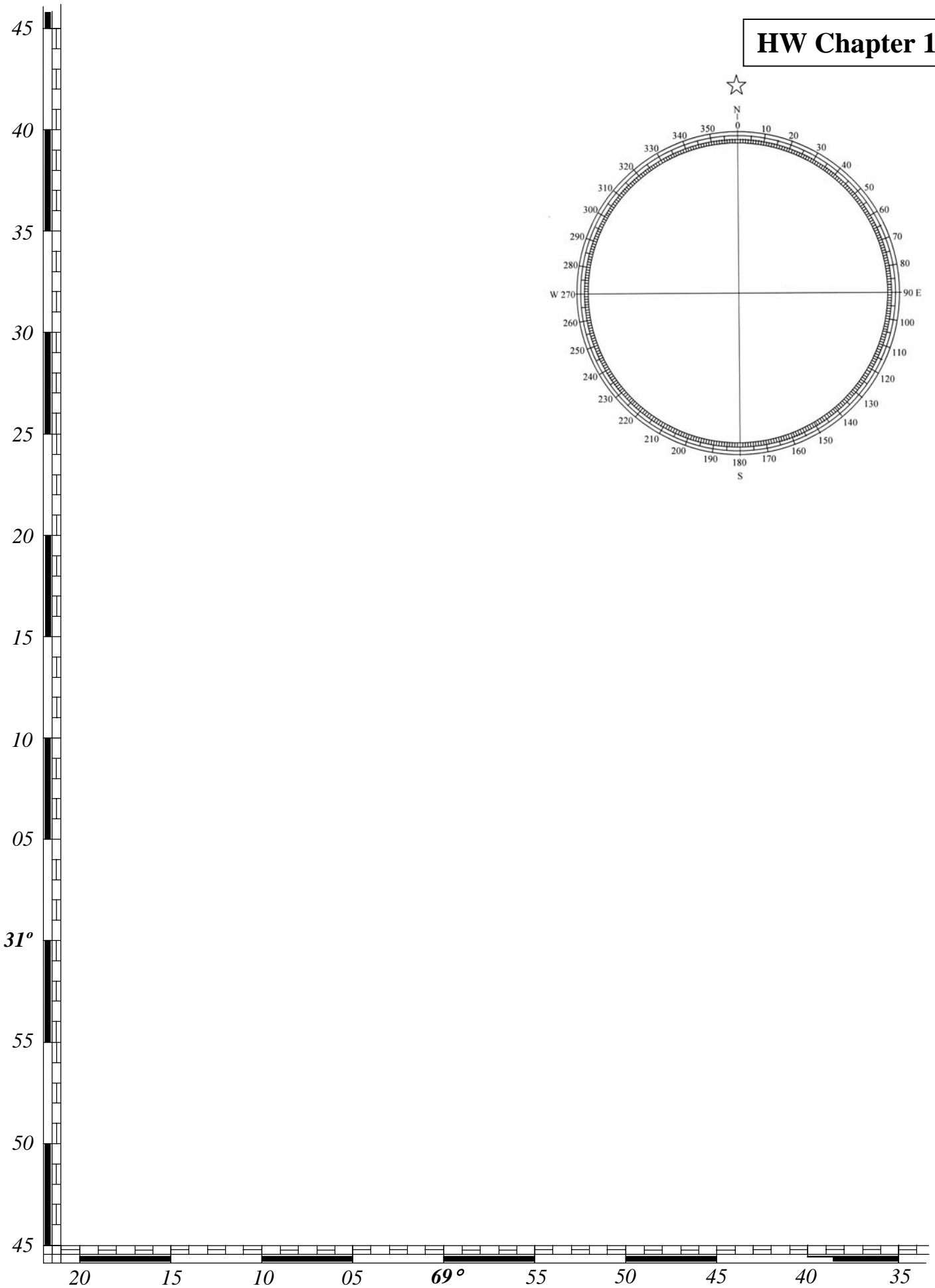
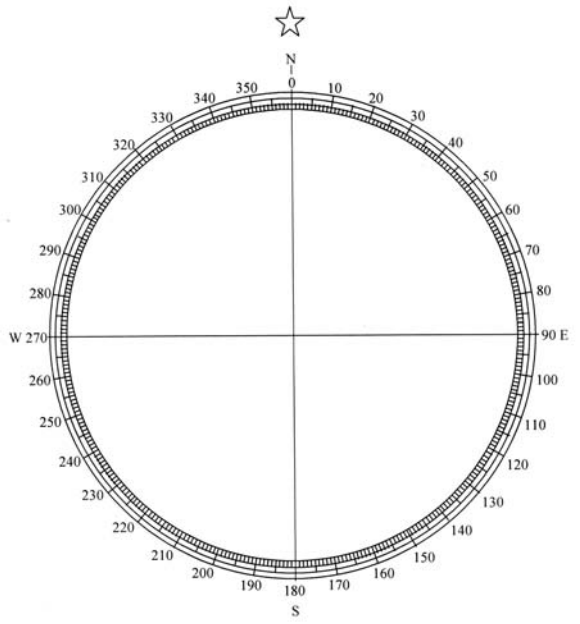


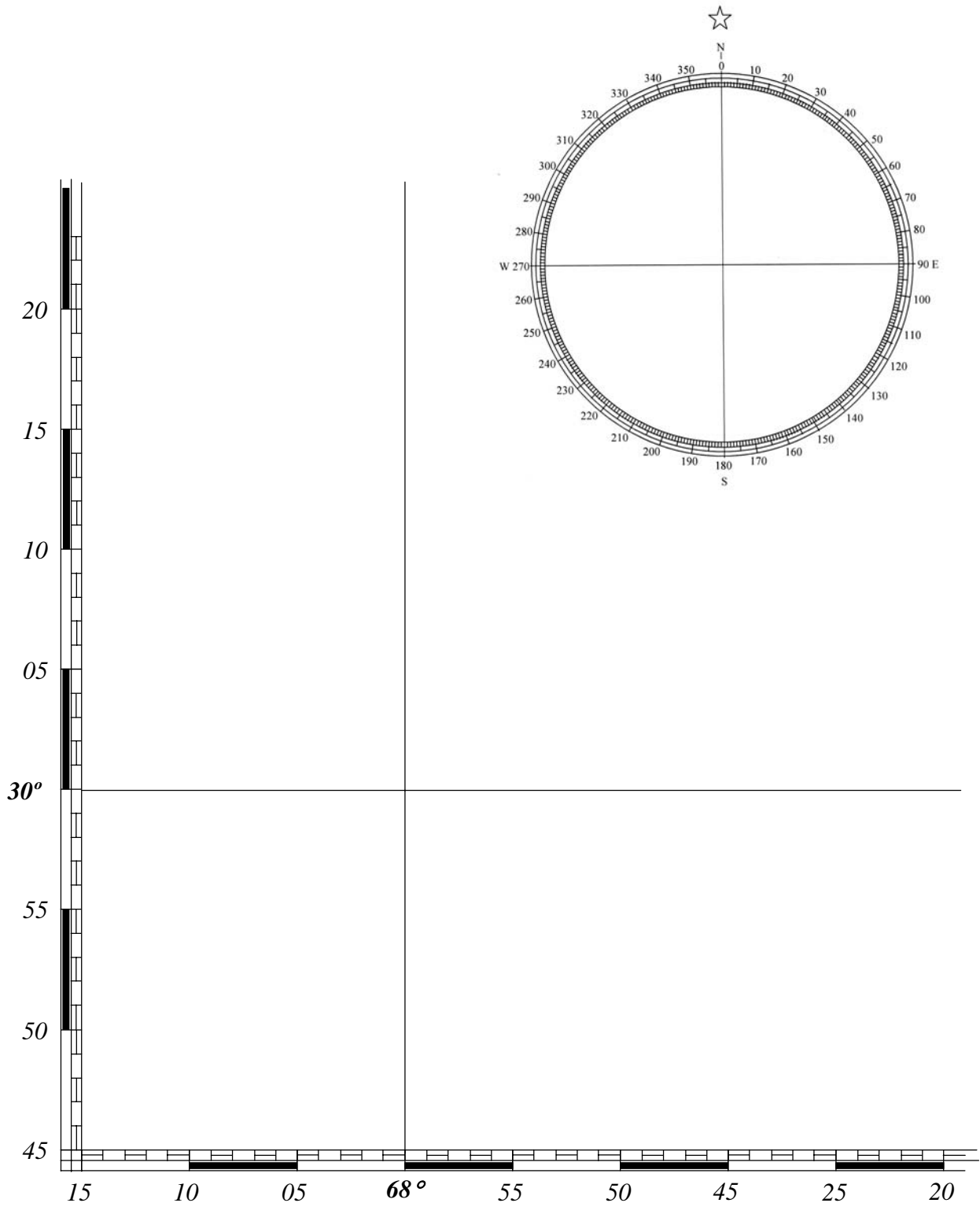
Homework Plotting Sheets

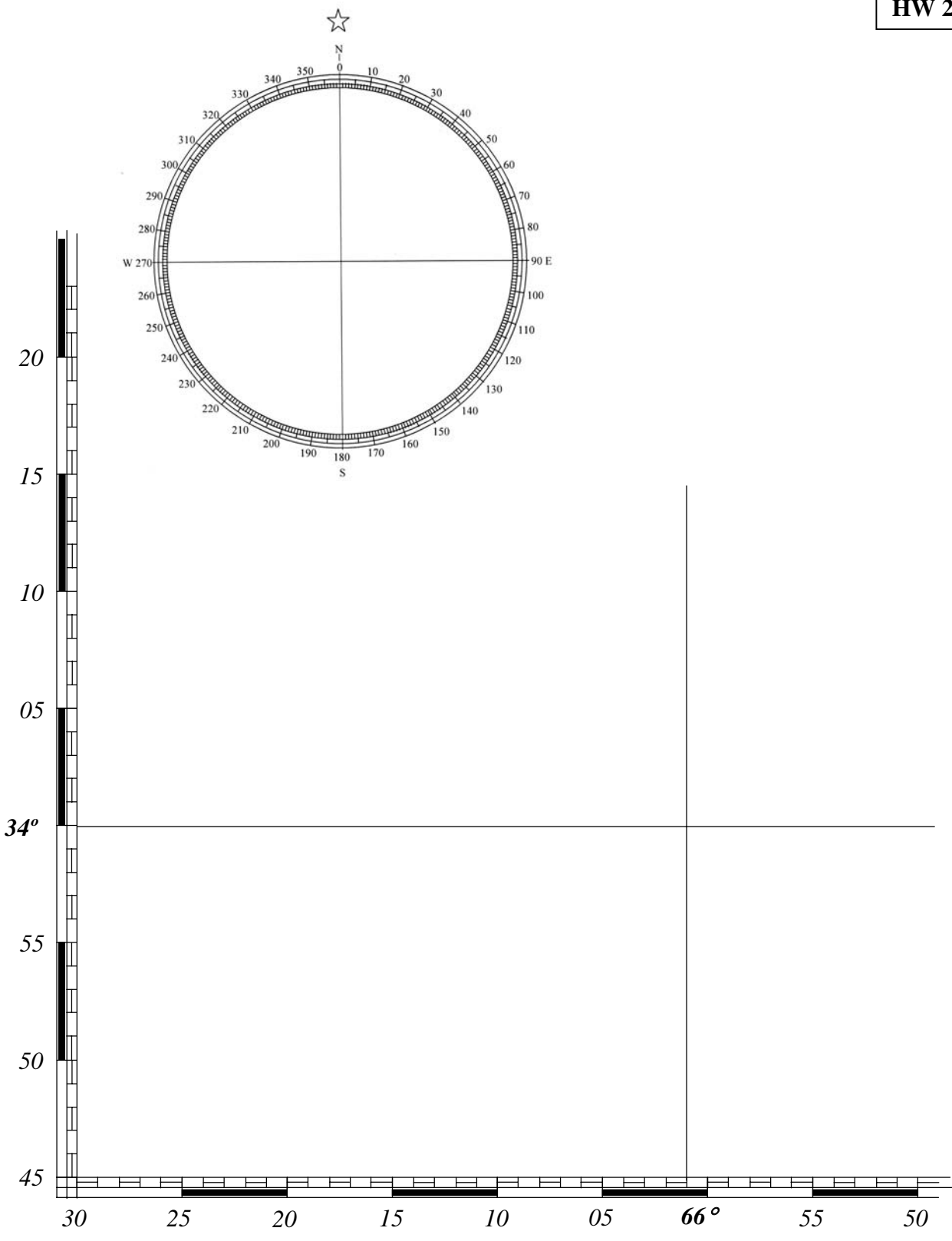
Celestial Navigation for Sailors
September 2019 Edition

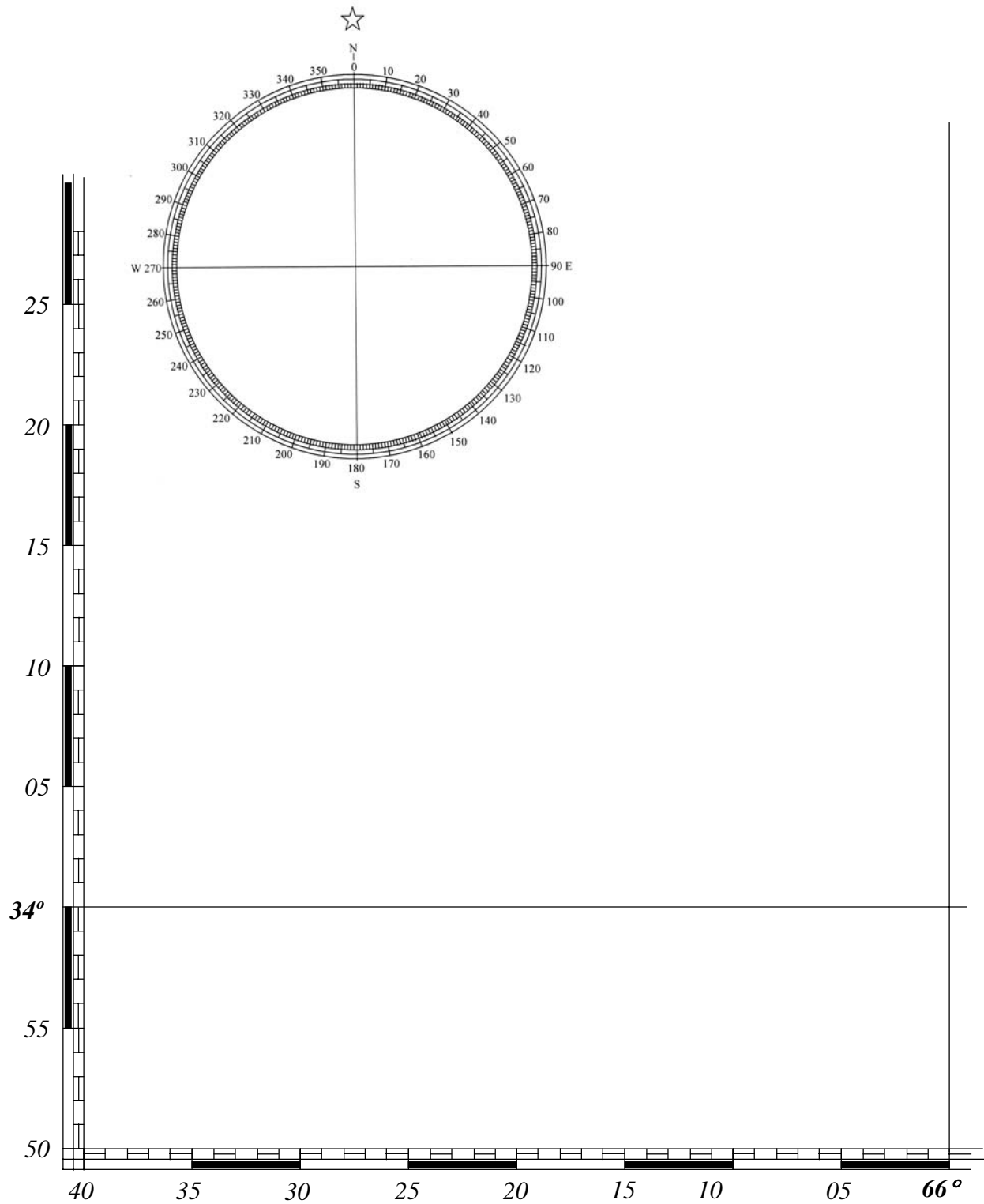
It's best to do the homework plots on a DMA925 full sized plotting sheet, but if you don't have access to one, you can use the attached plotting sheets.

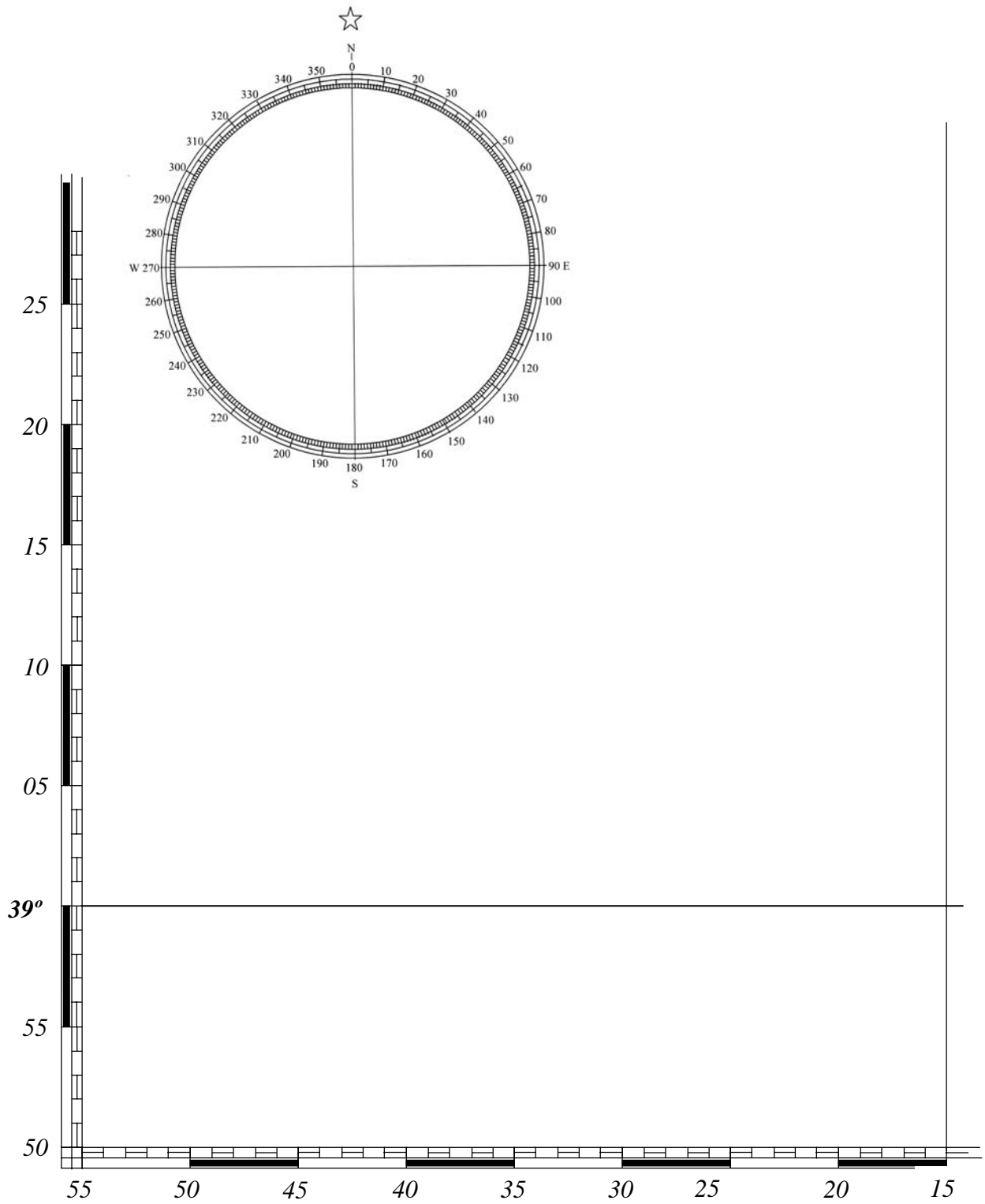
HW Chapter 1





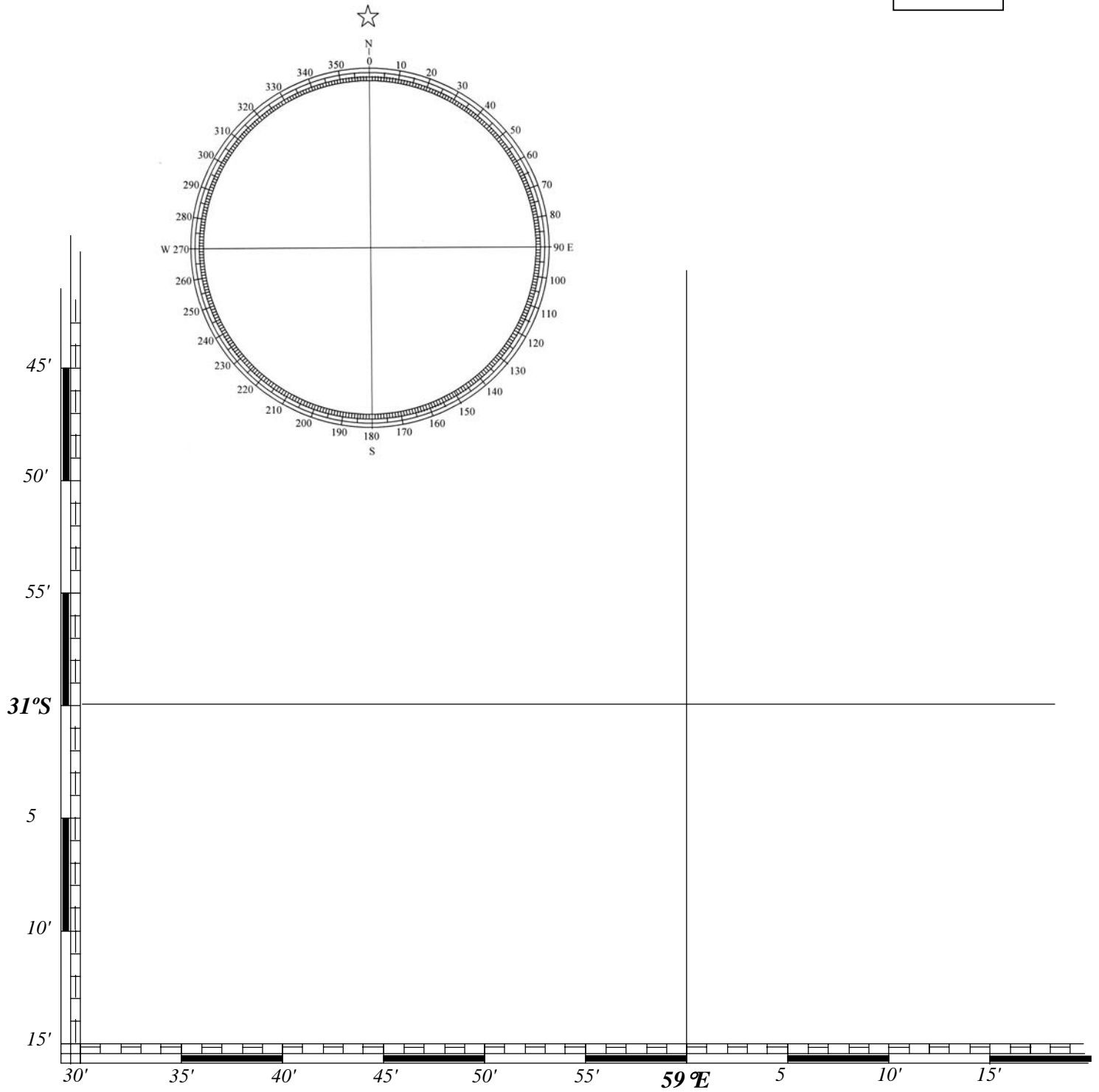






Celestial Navigation for Sailors

HW 3-2



Homework #3-3 Compass Calibration

Complete the compass calibration, including a Deviation Table and Graph using the forms included below, for the following data obtained on October 28, 1993:

Latitude: 38°59.5N

Longitude: 76°26.9W

Magnetic Variation: 10°W

Boat Heading (H) °C	Time (EDT) hr-min-sec	Sundial Reciprocal Relative Bearing to Sun (RRB) °	Sundial Relative Bearing to Sun (RB) °	Compass Bearing to Sun (H + RB) °C
045	101608	284	104	149
090	101812	241		
135	102031	199		
180	102219	153		
225	102441	106		
270	102635	059		
315	102837	013		
360	103033	331		

Calculate the True bearing to the Sun (Z_n) for each boat heading and time, and complete the following table rounding off the bearings (Z_n) to the nearest whole degree.

Boat Heading (H) °C	Time (EDT) hr-min-sec	Time (GMT) hr-min-sec	Z_n °T	Z_n °T (rounded)
045	101608	141608	137.7	138
090	101812			
135	102031			
180	102219			
225	102441			
270	102635			
315	102837			
360	103033			

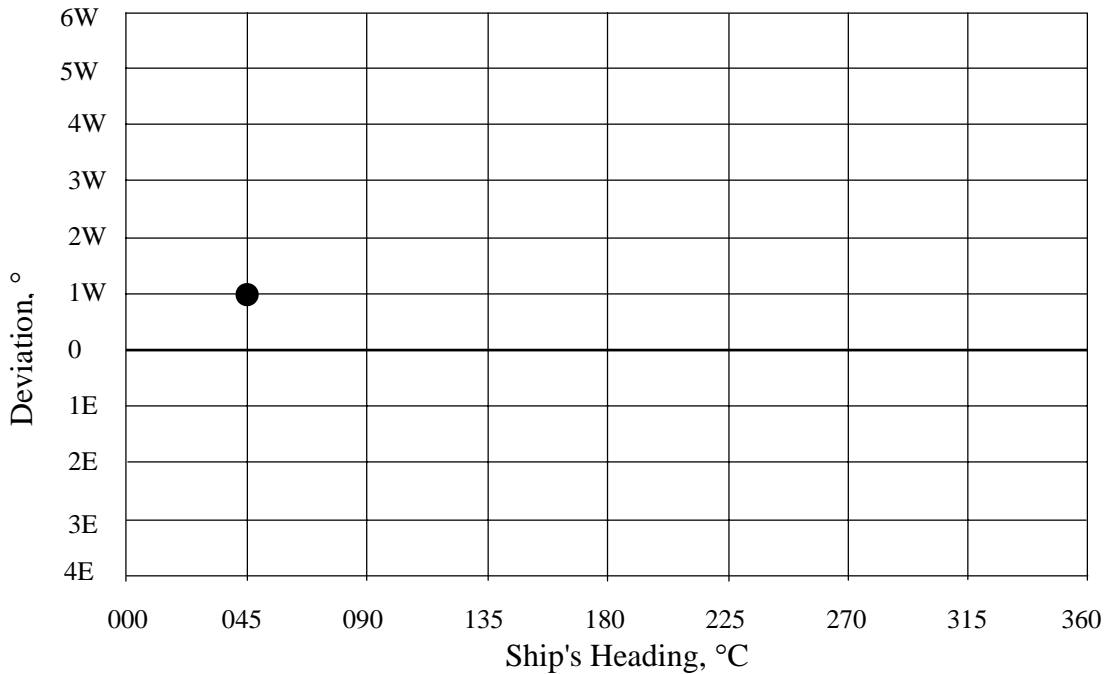
Next, complete the TVMDC table to determine compass Deviation for each boat heading.

H	T	V	M	D	C
045	138	10W	148	1W	149
090					
135					
180					
225					
270					
315					
360					

And from this, construct a Deviation table using the following format:

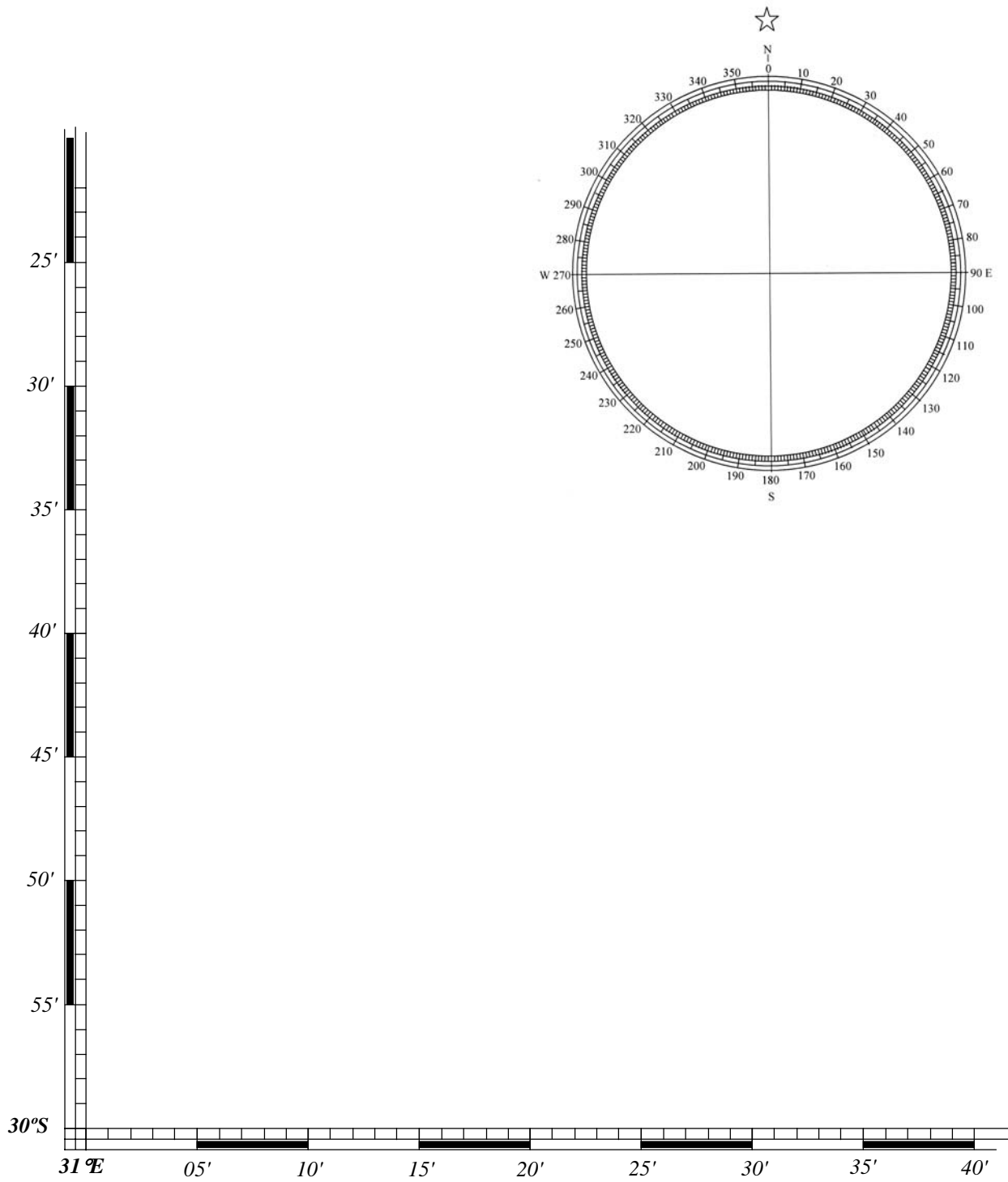
Ship's Heading °M	Compass Deviation °E or °W	Ship's Heading °C
044	1W	045

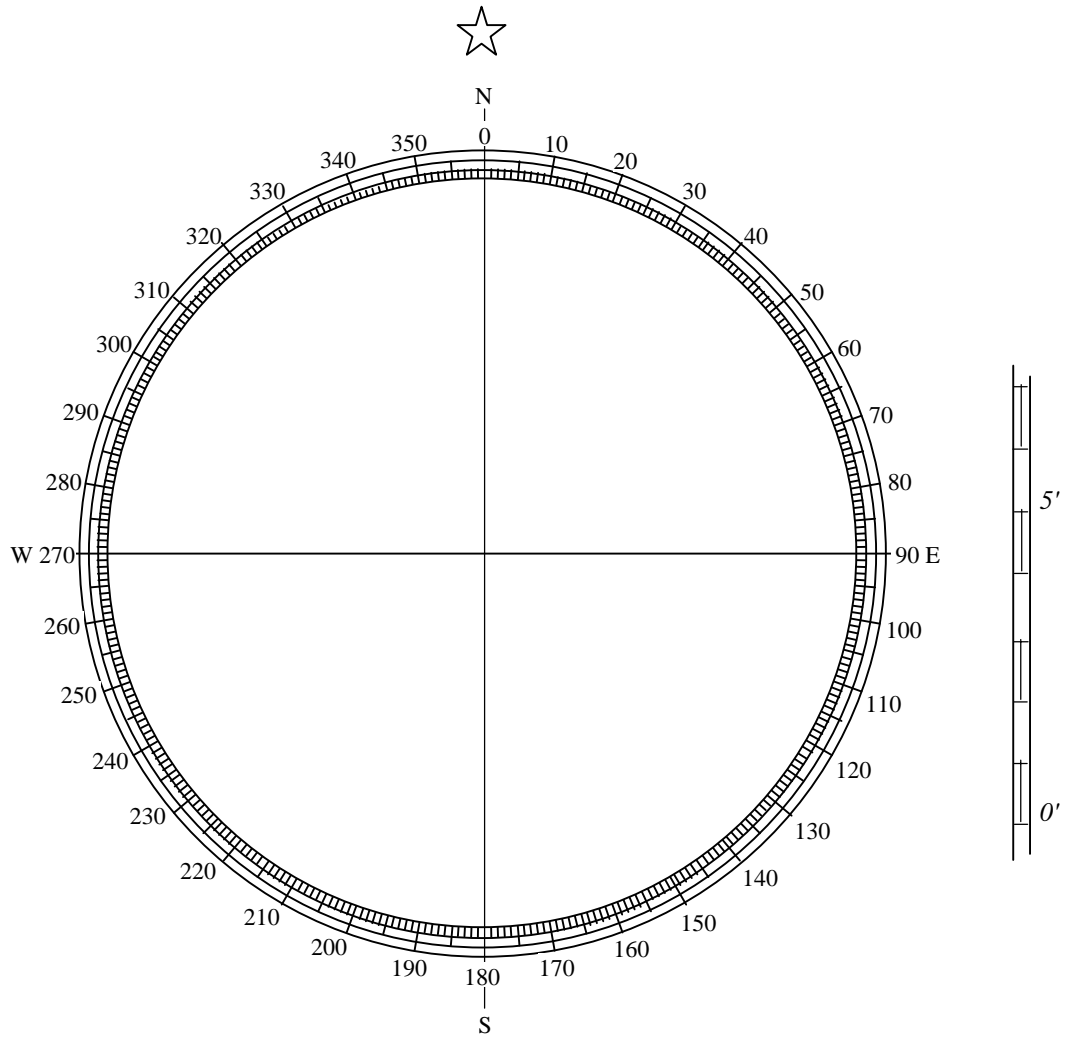
And from the data in this table, construct a Deviation Graph using the following format:

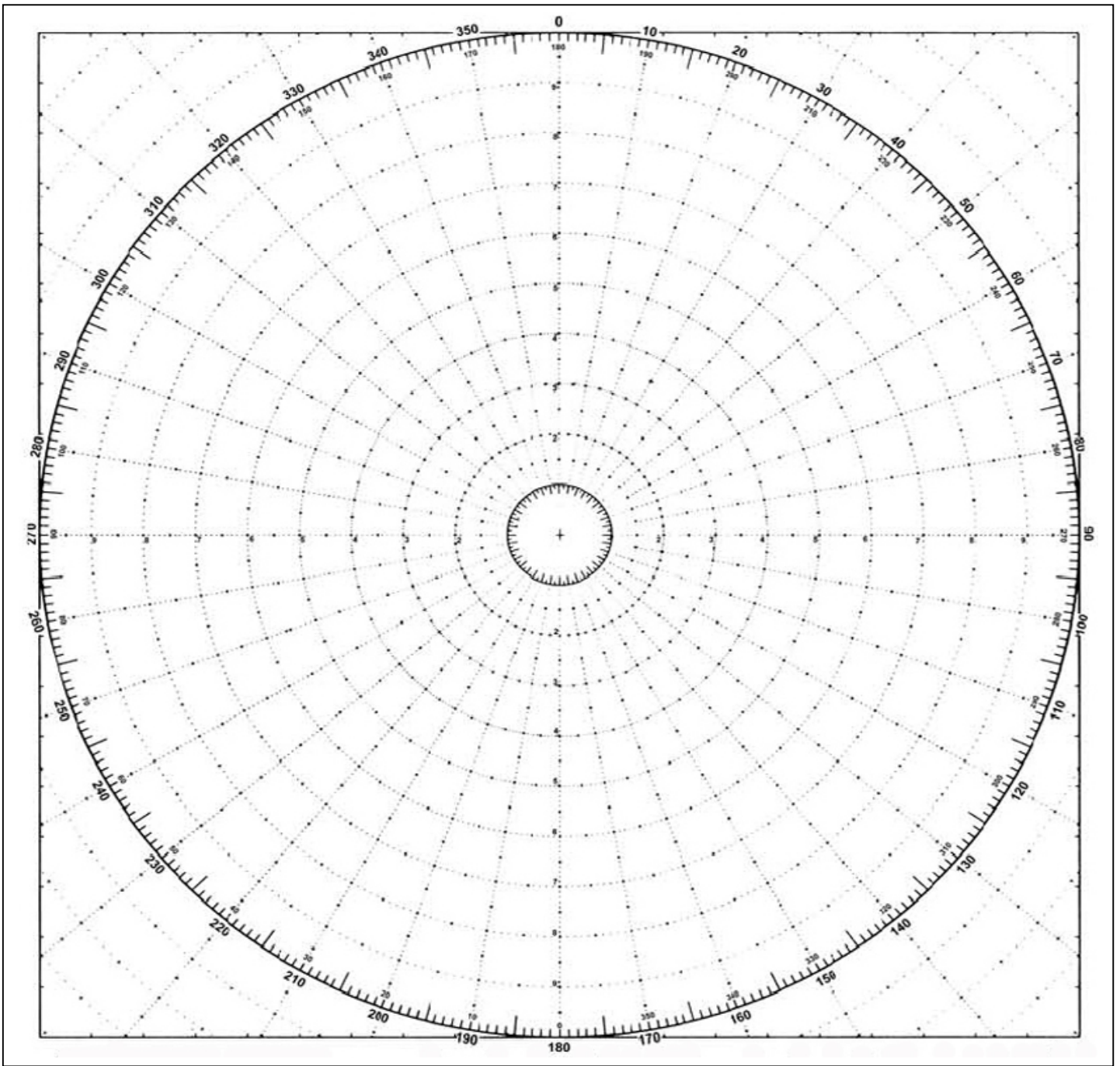


Chapter 3- Refinements

HW 3-4







HW 4-1

