Scout Name _____ Unit # _____ Date _____

Astronomy Merit Badge Worksheet

Requirement 1

Identify ten-(10) conspicuous constellations, including four (4) in the Zodiac.

#	Name of Constellation Identified	Date and Time Identified MM/DD/YYYY HH:MM	Part of Zodiac? YES or NO
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Identify eight-(8) stars of the first magnitude.

#	Name of First Magnitude Star	Date and Time Identified MM/DD/YYYY HH:MM
1		
2		
3		
4		
5		
6		
7		
8		

Requirement 2

Chart the position of Venus and Mars among the stars over a period of at least four (4) weeks, and state the exact period of your observations.

WEEK 1. Date _____ Time _____

WEEK 2. Date _____ Time _____

Scout Name _____ Unit # _____ Date _____

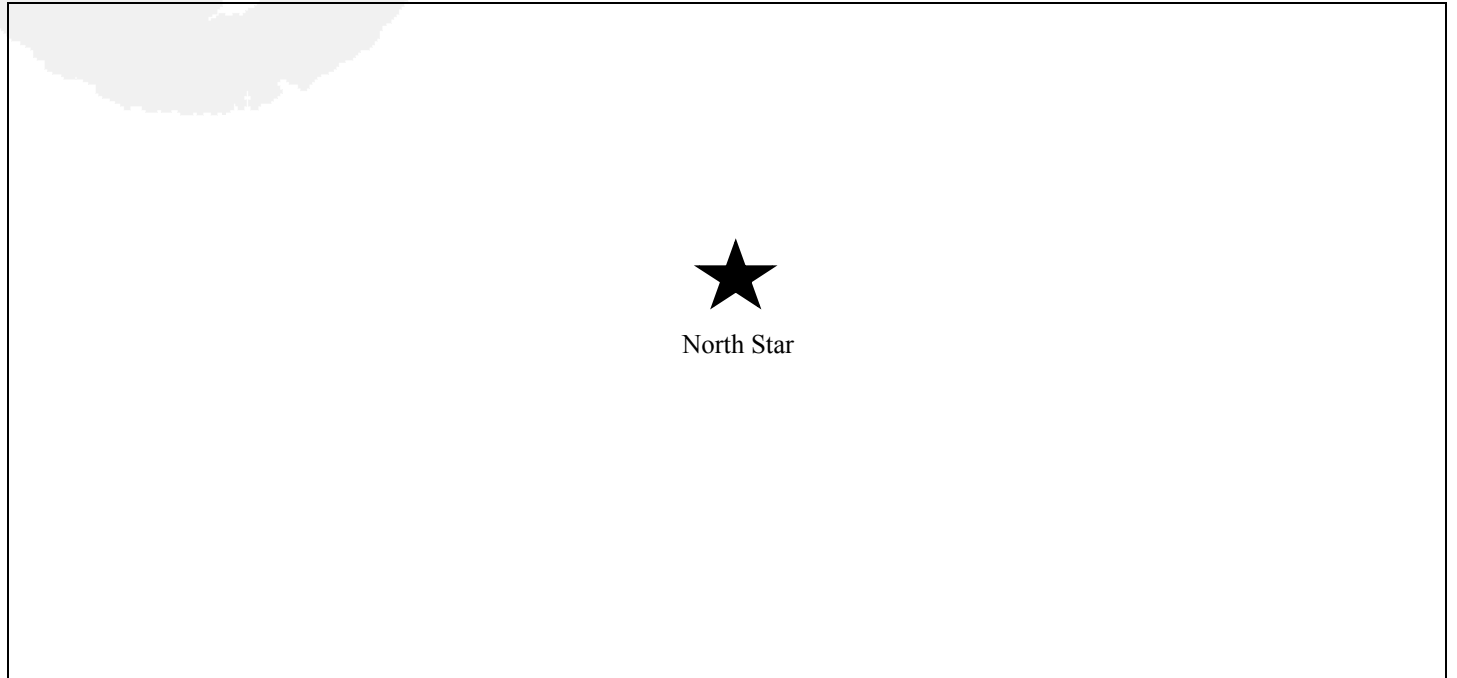WEEK 3. Date _____ Time _____

WEEK 4. Date _____ Time _____

Requirement 3

Sketch the position of the Big Dipper in relation to the North Star and the horizon early one evening.
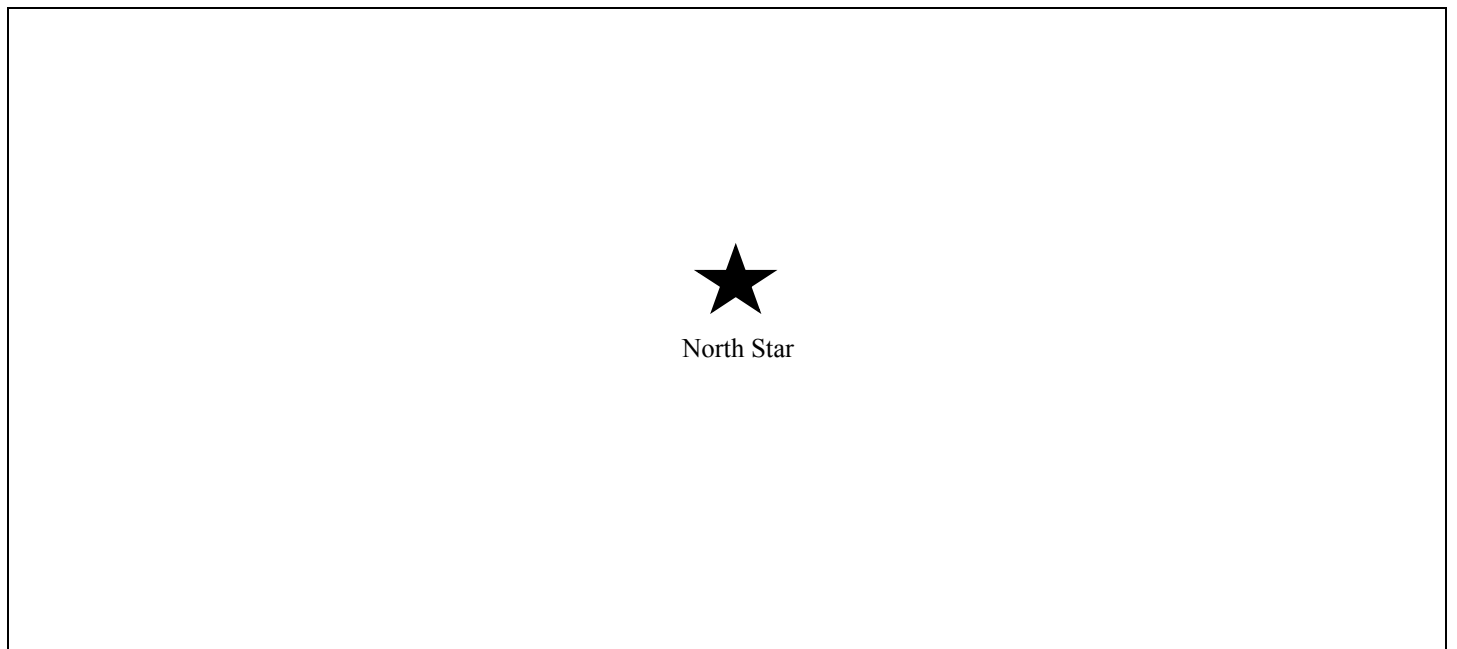
Date _____ Time _____

North Star

Six-(6) Hours Later. Sketch the position of the Big Dipper in relation to the North Star and the horizon.
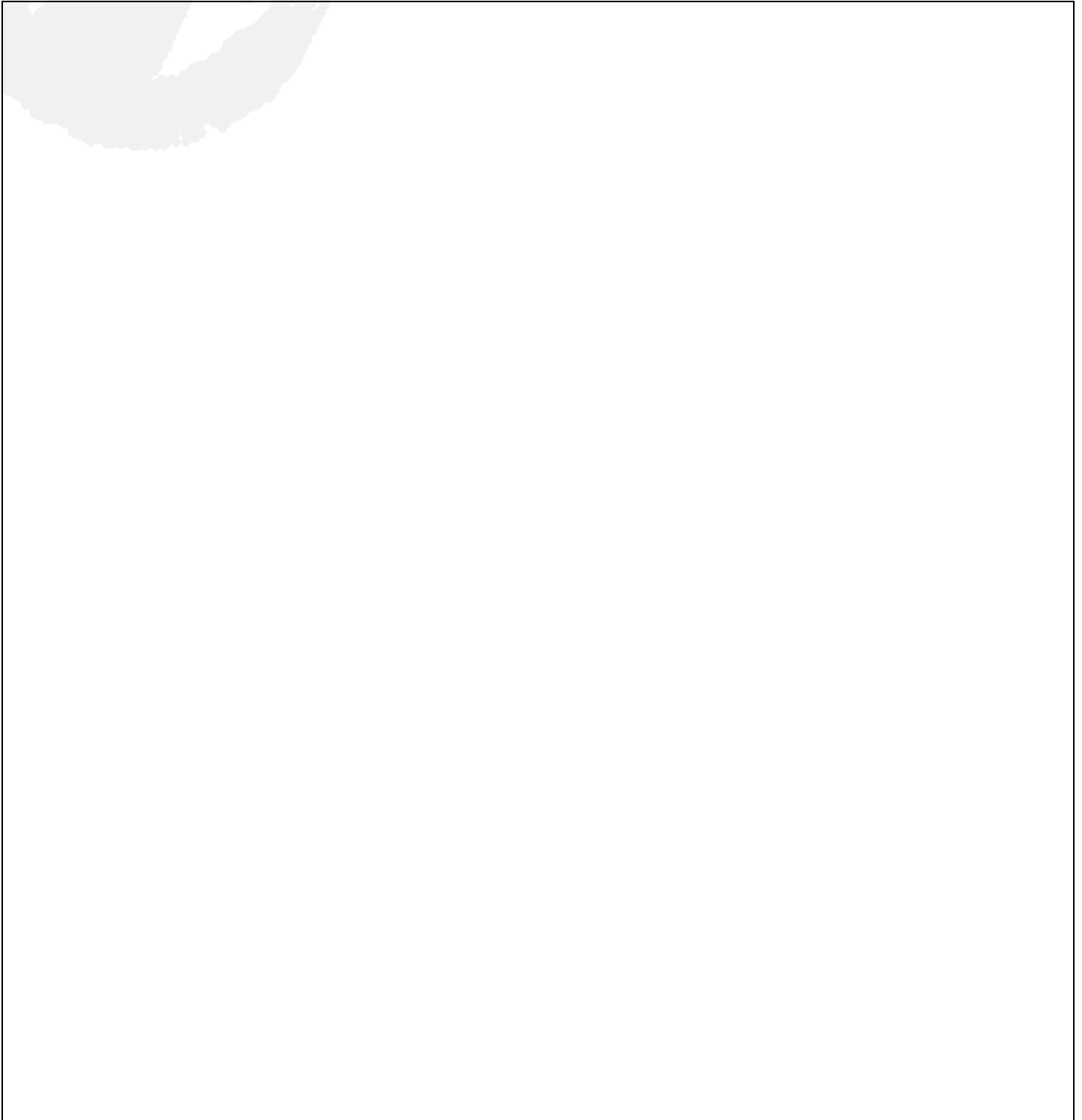
Date _____ Time _____

North Star

Requirement 4

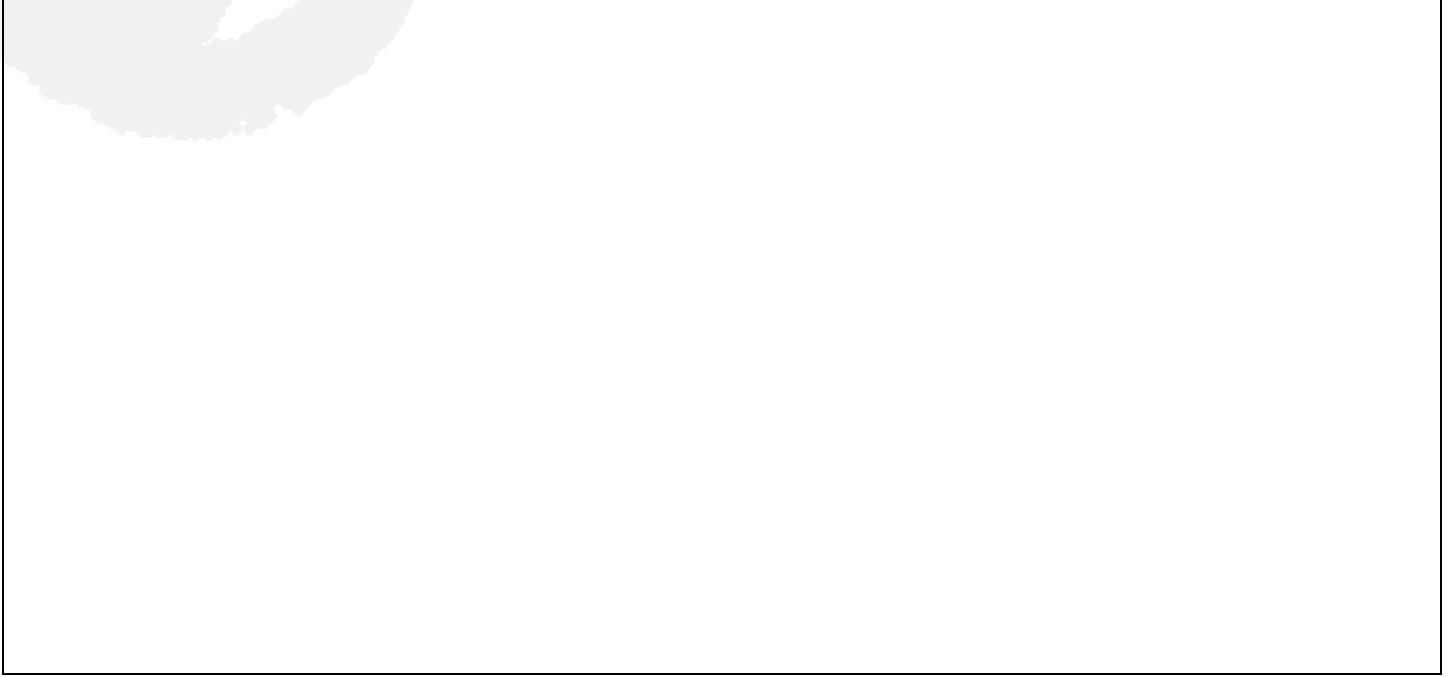Indicate in the sky the limits of the group of stars which, as seen from your latitude, never set.

By your own observation, determine whether the Big Dipper or Cassiopeia ever sets. ☐ YES   ☐ NO
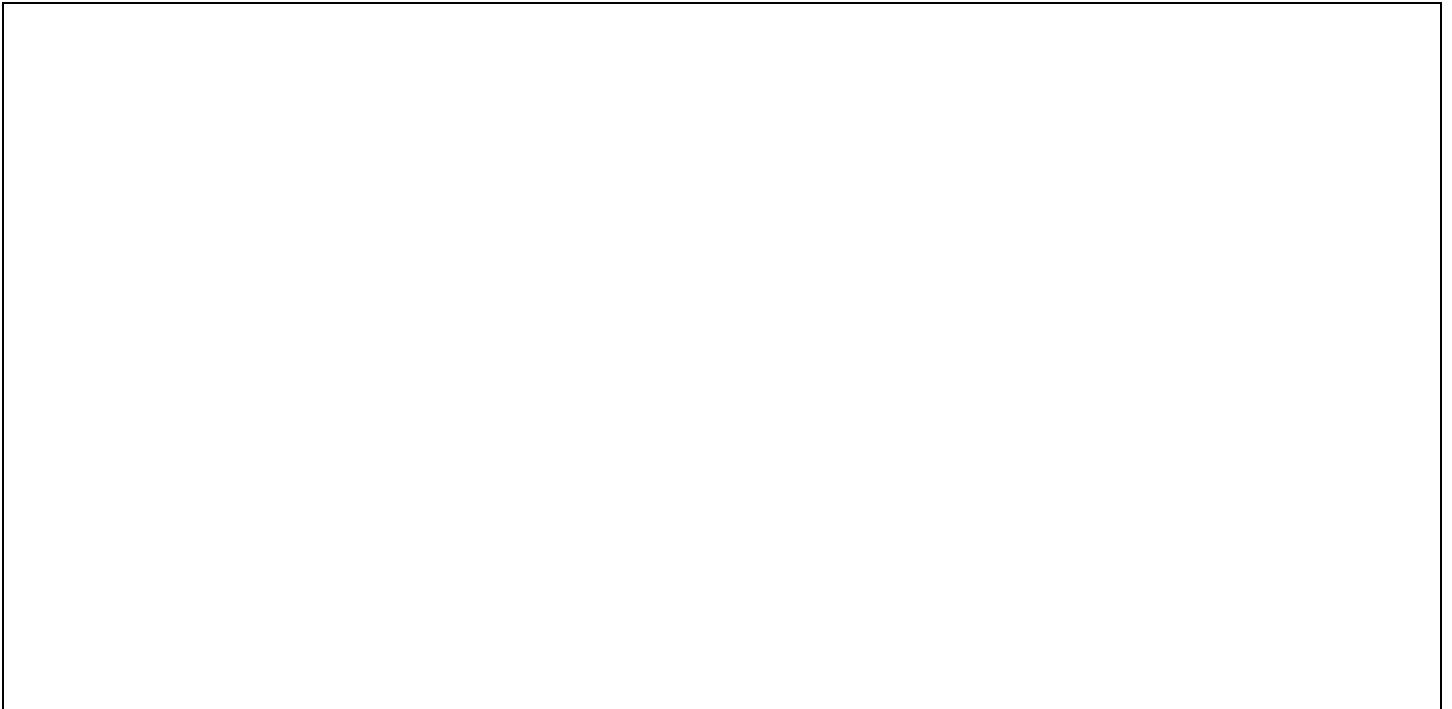
Requirement 5

Draw a diagram showing the relative positions of the sun, moon, and earth.
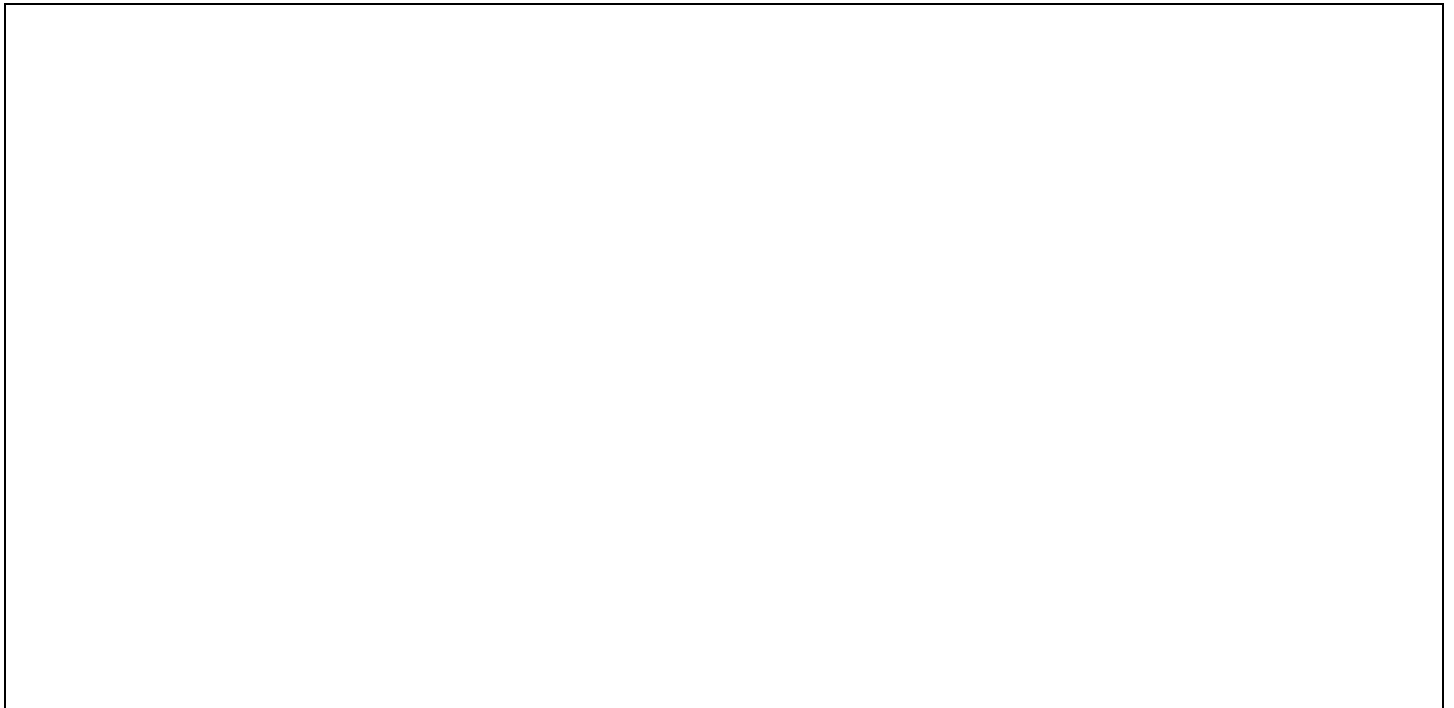
NEW MOON

FIRST QUARTER

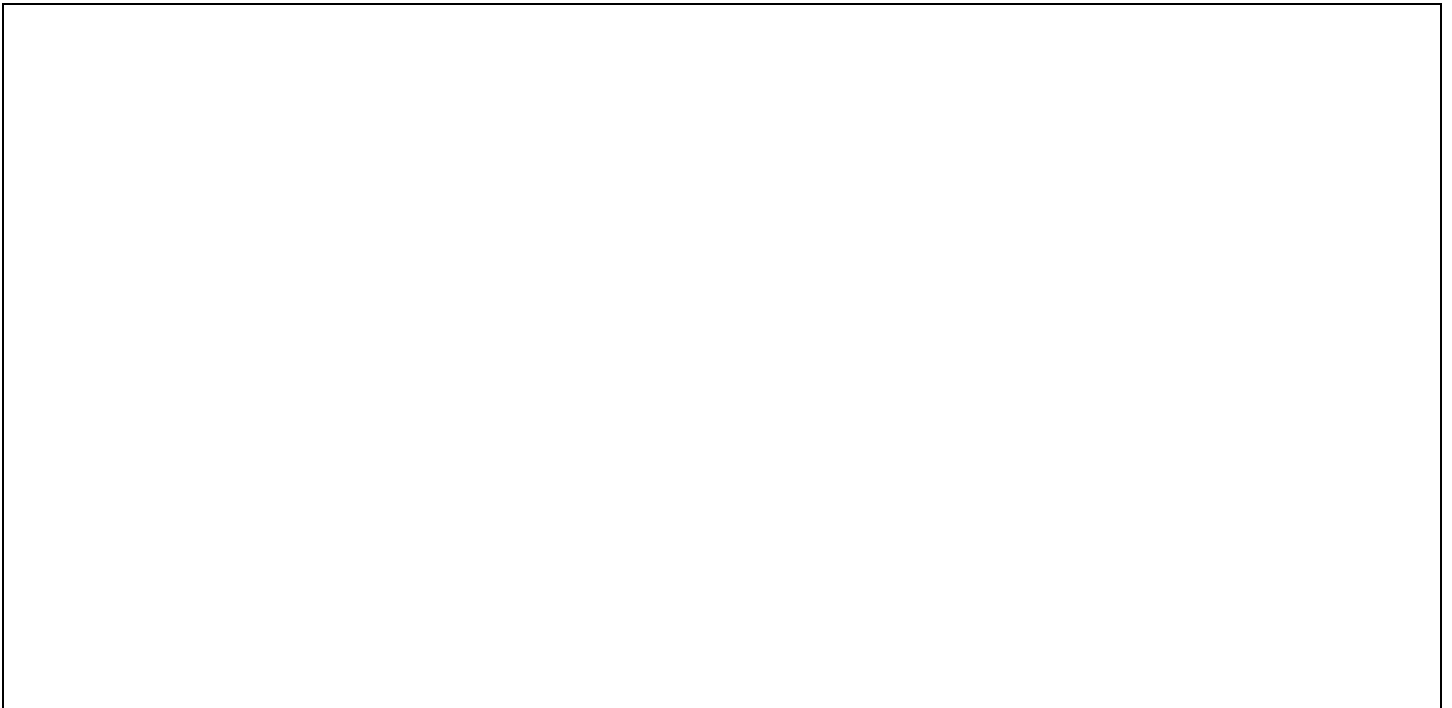Scout Name _____ Unit # _____ Date _____

FULL MOON

LAST QUARTER

ECLIPSE OF THE SUN

ECLIPSE OF THE MOON

Requirement 6

Explain the principal cause of tides.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Draw a diagram showing the relative positions of the sun, moon, and earth.

HIGH TIDE	LOW TIDE

Requirement 7

Explain the principal difference between a reflecting and a refracting telescope.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Show the difference by a simple diagram

REFLECTING TELESCOPE	REFRACTING TELESCOPE