

### Lab Report – Moon Phases and Topography

#### SECTION 1: Moon Phases

##### A. Exercise 1

Which Moon Position (A-E) best corresponds with the moon phase shown in the upper left corner of **Figure 3**?

Enter the letter of Your Choice: \_\_\_\_\_

Name the moon phase: \_\_\_\_\_

How many days from New Moon have elapsed?: \_\_\_\_\_

##### B. Exercise 2

Letter ____ Phase _____
Letter ____ Phase _____

Letter ____ Phase _____
Letter ____ Phase _____

##### C. Exercise 3

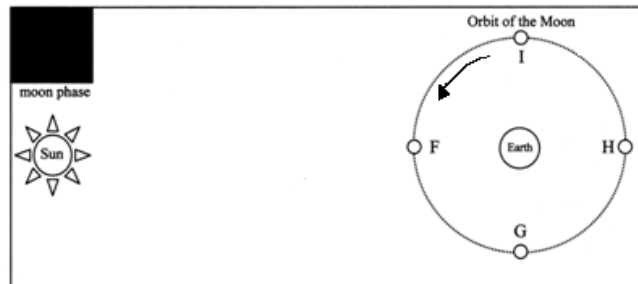


Figure 4

Use **Figure 4** to answer the following questions:

Which Moon position (F-I) best corresponds with a New Moon? \_\_\_\_\_

How much of the entire Moon's surface is illuminated by the Sun during this phase?

How much of the Moon's illuminated surface is visible from earth for this phase of the Moon?

Which position in Figure 4 would best correspond to "Third Quarter"?

**D. Exercise 4**

Do you agree or disagree with either or both of the students? Why?

**E. Exercise 5:**

If the Moon is a full moon tonight, will the Moon be waxing or waning one week later?

Which side of the Moon (right or left) will appear illuminated from Earth a week after full moon?

Where would you look to see the full moon when it starts to rise (North, South, East, West)?

What time of the day would the moon start to rise (in full moon phase)? \_\_\_\_\_

**F. Exercise 6**

Name each of the phases that appear on **Figure 5**.

A \_\_\_\_\_ B \_\_\_\_\_ C \_\_\_\_\_

D \_\_\_\_\_ E \_\_\_\_\_ F \_\_\_\_\_

G \_\_\_\_\_ H \_\_\_\_\_

If the Moon is a full moon when it rises in the evening, which of the phases shown in **Figure 5** (A-H) will it be in when it sets?

**SECTION 2: Moon Topography**

	<b>Surface Feature</b>	<b>Diameter (km)</b>	<b>Lunar Latitude</b>	<b>Lunar Longitude</b>
1	Copernicus	93		
2	Eratosthenes	58		
3	Apennines Mountains (Appenninus Montes)	Extended	Extended	Extended
4	Archimedes	83		
5	Autolycus	39		
6	Aristillus	55		
7	Sea of Rains (Imbrium Mare)	Extended	Extended	Extended
8	Timocharis	34		
9	Cassini	57		
10	Helicon	25		
11	Lambert	30		
12	Carpathian Mountains (Carpathus Montes)	Extended	Extended	Extended
13	Reinhold	48		
14	Euler	28		
15	Kepler	32		
16	Plato	101		

**Table 1**

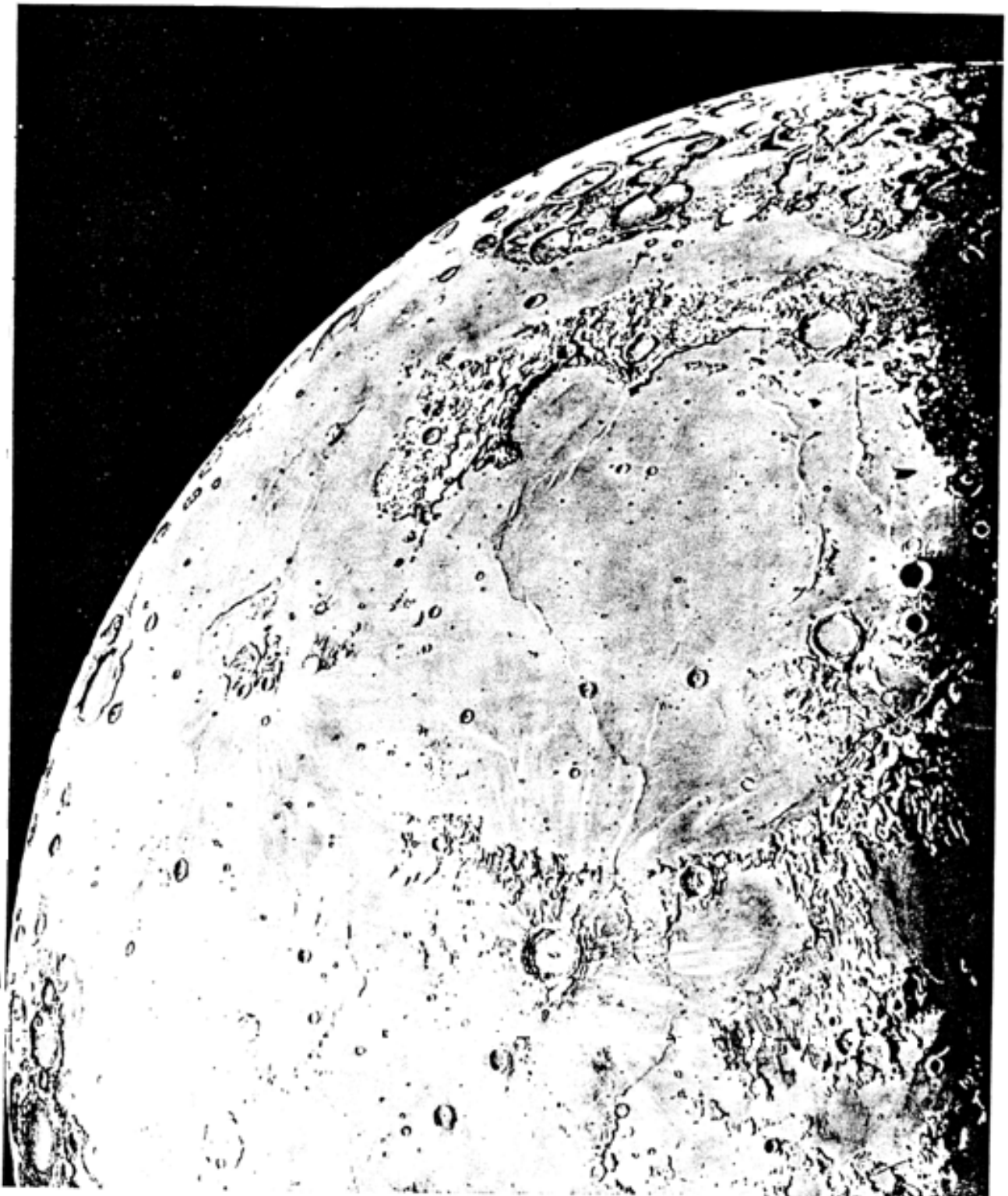
What is the name of the face of the moon we always see? \_\_\_\_\_

What are maria? \_\_\_\_\_

What are graben rilles? \_\_\_\_\_

Where is the Moon's prime meridian? \_\_\_\_\_

What are pali? \_\_\_\_\_



**Figure 6**