

Isabel Williamson Lunar Observing Forms

To qualify for the Isabel Williamson Certificate all R (required observations) must be completed by entering the date and time for each observation. The C (challenge observations) are optional as well as the rest of the fields on these observing forms, such as drawings. **The IWLOP Deluxe Observing Forms must be used and submitted.**

PART 1 – Introducing the Moon

A – Lunar Phases and Orbital Motion

R 1 – Enter in the notes section the date and time for each phase observed.

R 2 – Date _____ Time _____

R 3 – Date _____ Time _____

Date _____ Time _____

Notes

B – Major Basins (Maria) & Pickering Unaided Eye Scale

R 1 – Date _____ Time _____

C 1 – Date _____ Time _____

C 2 – Date _____ Time _____

Notes

C – Ray System Extent

R 1 – Date _____ Time _____

C 1 – Date _____ Time _____

Notes

D – Crescent Moon Less Than 24 Hours From New

| C 1 – Date | Age in Hours | Location |
|------------|--------------|----------|
| _____ | _____ | _____ |

Notes

E – Binocular & Unaided Eye Libration

| | |
|------------------|------------|
| R 1 – Date _____ | Time _____ |
| C 1 – Date _____ | Time _____ |

Notes

PART 2 – MAIN OBSERVING LIST

As in part one, only the R (required observations) and the date and time they were observed need to be completed to obtain the Isabel Williamson Lunar Observing Certificate.

The numbers for ‘Seeing’ and ‘Transparency’ refer to the condition of the sky at the time the observation was made. ‘Seeing’ refers to the steadiness of the atmosphere and ‘Transparency’ to the clarity. In both cases, it is the Antoniadi Scale where 1 is best, 2 is better-than-average, 3 is average, 4 is below average, and 5 is poor.

The telescope and magnification fields provide a space to record the instrument(s) and the power used for each observation. The magnification, or power, is based on the focal length of the telescope divided by the focal length of the eyepiece used.

Objective 1a: Eastern Mare Crisium

| Required Observations (Eastern Mare Crisium) | Date | Time |
|--|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations (Eastern Mare Crisium) | Date | Time |
|---|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5

Transparency: 1 2 3 4 5

Telescope: _____

Magnification: _____

Objective 1b: Western Mare Crisium

| Required Observations (Western Mare Crisium) | Date | Time |
|--|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations (Western Mare Crisium) | Date | Time |
|---|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5

Transparency: 1 2 3 4 5

Telescope: _____

Magnification: _____

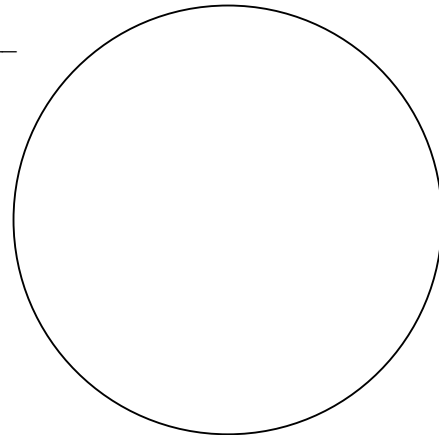
Objective 2: Eastern Basin Group

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____



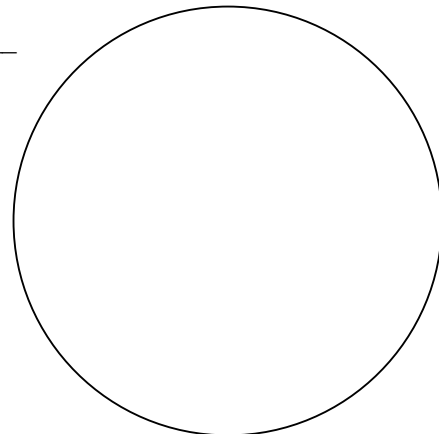
Objective 3: Mare Anguis

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____



Objective 4: Vendelinus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 5: Langrenus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 6: Petavius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



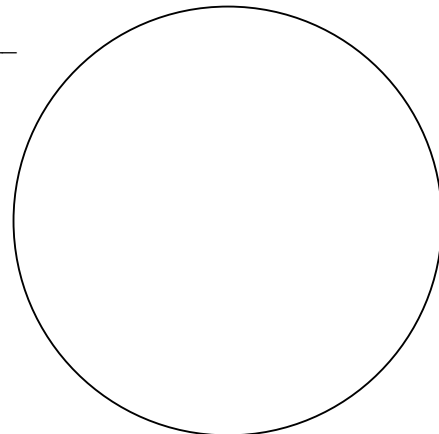
Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____

Objective 7: Furnerius & Fraunhofer

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



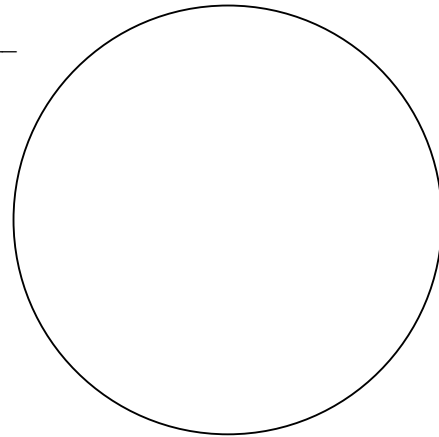
Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____

Objective 8: Geminus & Lacus Spei

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



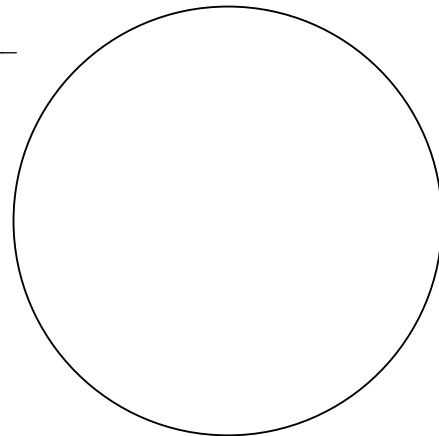
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 9: Endymion & Mare Humboldtianum

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

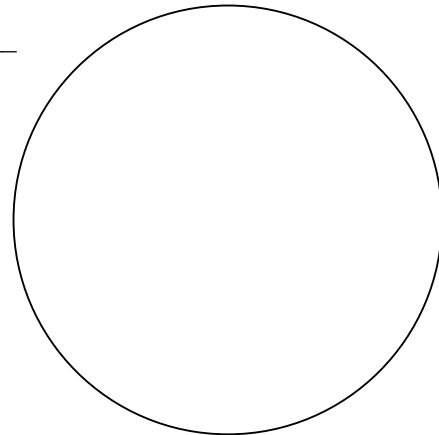
Objective 10: Snellius & Vallis Snellius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



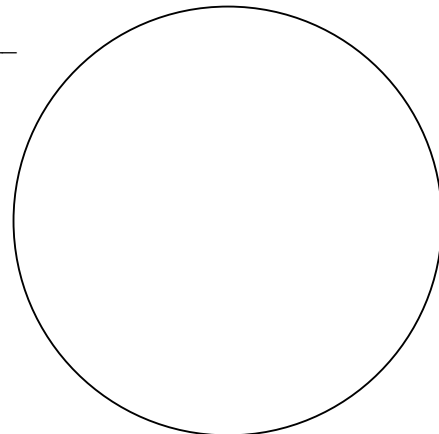
Objective 11: Cleomedes & Macrobius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



Objective 12: Stevinus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



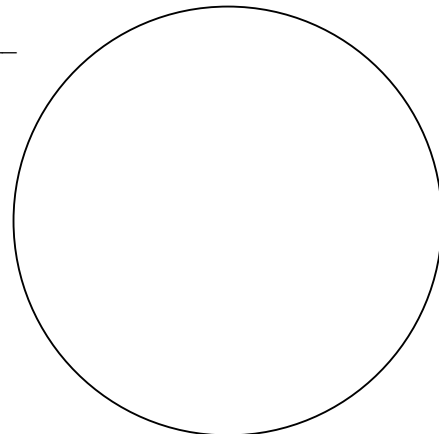
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 13a: Eastern Mare Fecunditatis

| Required Observations (Eastern Mare Fecunditatis) | Date | Time |
|---|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
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Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 13b: Central Mare Fecunditatis

| Required Observations (Central Mare Fecunditatis) | Date | Time |
|---|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (Central Mare Fecunditatis) | Date | Time |
|--|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 13c: Western Mare Fecunditatis

| Required Observations (Western Mare Fecunditatis) | Date | Time |
|---|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (Western Mare Fecunditatis) | Date | Time |
|--|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 14: Vallis Rheita

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes



Seeing: 1 2 3 4 5

Transparency: 1 2 3 4 5

Telescope: _____

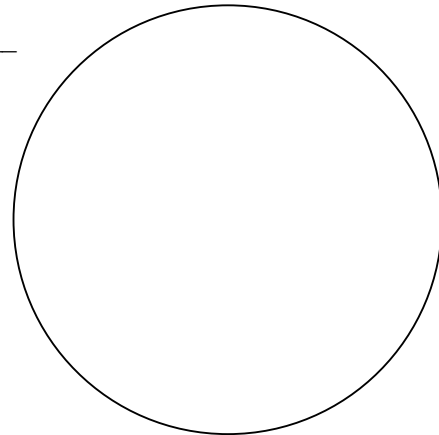
Magnification: _____

Objective 15: Promontoria Lavinium & Olivium

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5

Transparency: 1 2 3 4 5

Telescope: _____

Magnification: _____

Objective 16: Franklin & Cepheus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
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| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 17: Steinheil & Watt

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 18: Palus Somni & Proclus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 19: Newcomb

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
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| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 20: Metius & Fabricius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5

Transparency: 1 2 3 4 5

Telescope: _____

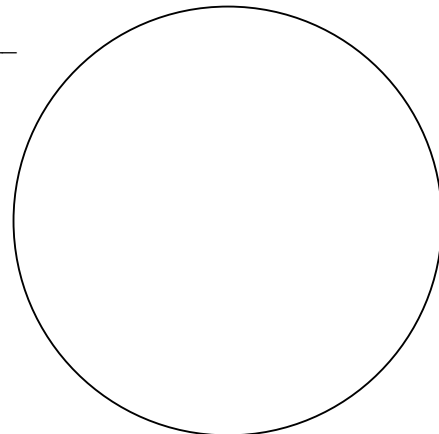
Magnification: _____

Objective 21: Sinus Concordiae

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5

Transparency: 1 2 3 4 5

Telescope: _____

Magnification: _____

Objective 22: Janssen

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 23: Montes Pyrenaeus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
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| | | |

Notes



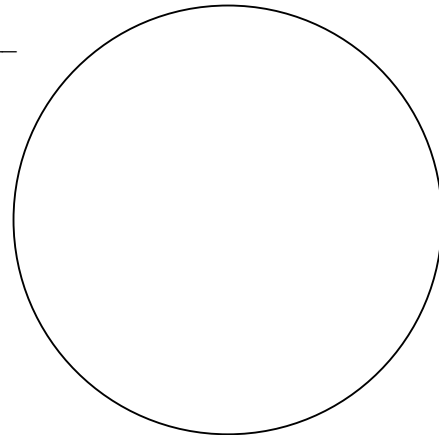
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 24: Atlas & Hercules

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



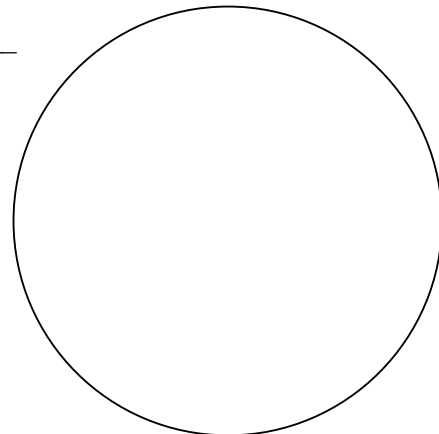
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 25: Mare Nectaris

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 26: Rupes Cauchy & Cauchy Domes

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



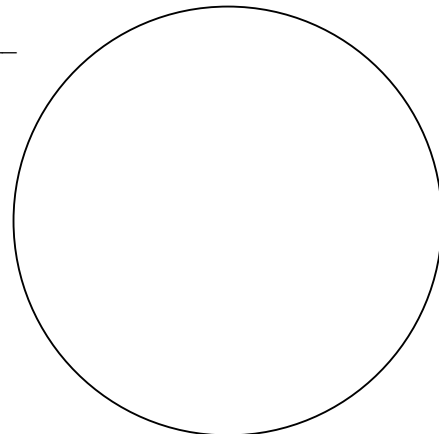
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 27: Sinus Amoris

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 28: Capella & Vallis Capella

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 29: Fracastorius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

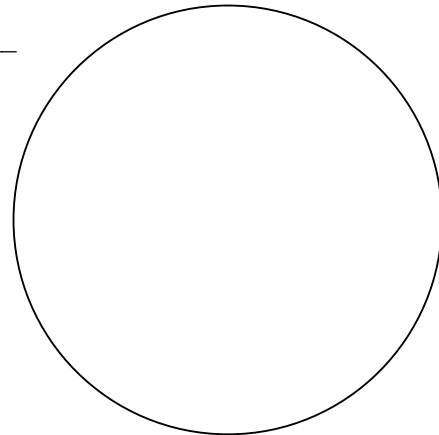
Objective 30: Hommel

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



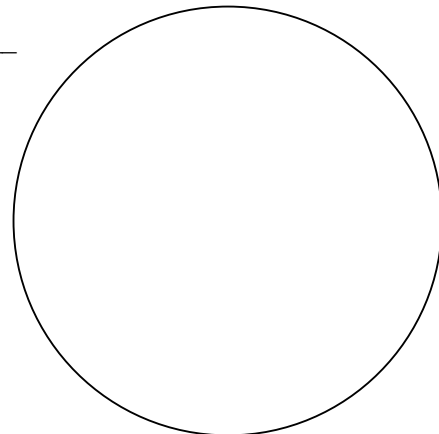
Objective 31: Piccolomini

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



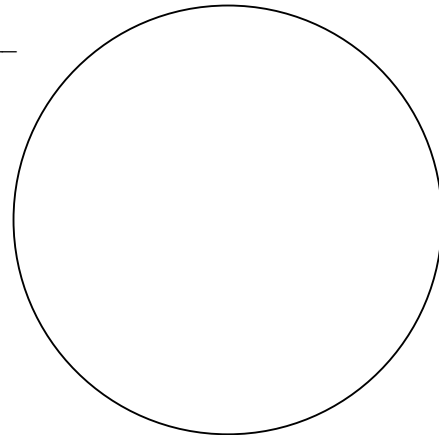
Objective 32: Wohler

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



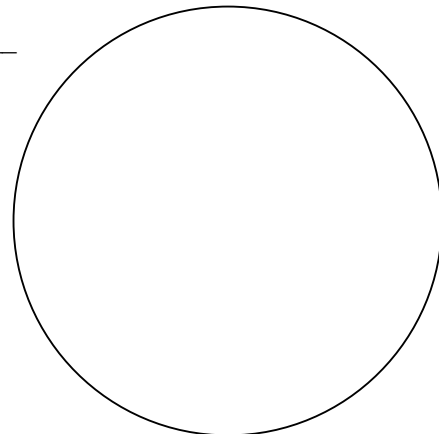
Objective 33: Posidonius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____

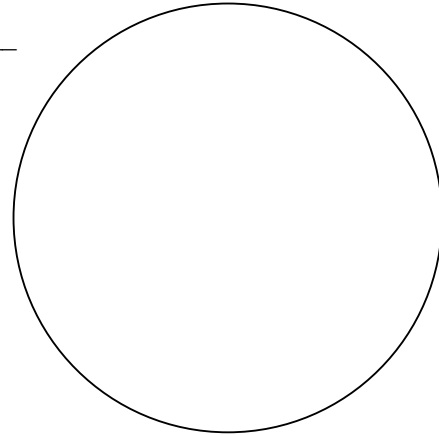


Objective 34: Dorsa Aldrovandi & Mons Argaeus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



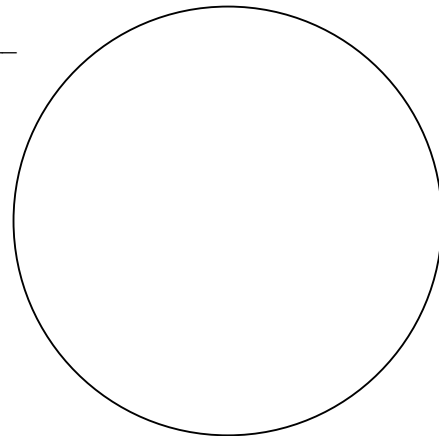
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 35: Jansen

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 36: Lacus Mortis & Burg

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



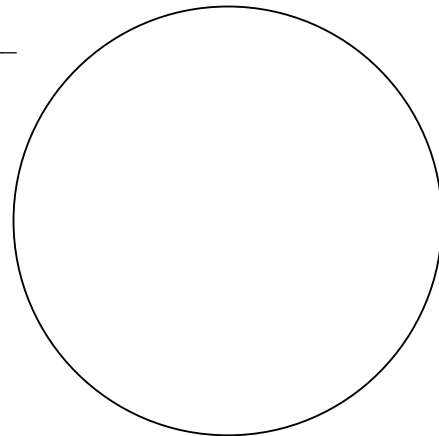
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 37: Theophilus (Sinus Asperitatis & Mare Nectaris Area)

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| R4 | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 38: Cyrillus (Sinus Asperitatis & Mare Nectaris Area)

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 39: Catharina (Sinus Asperitatis & Mare Nectaris Area)

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

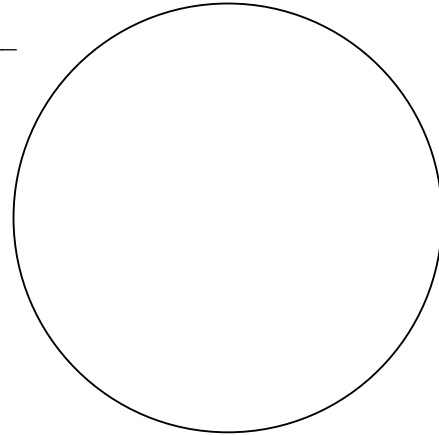
Objective 40: Rupes Altai

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



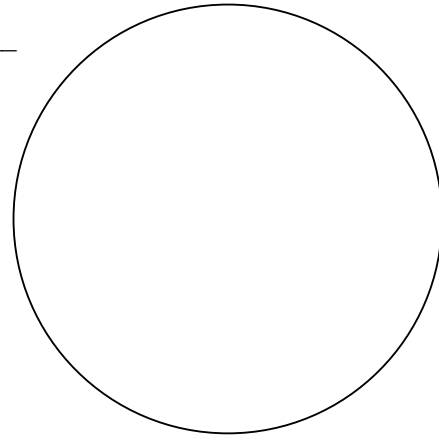
Objective 41: Mare Serenitatis

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



Objective 42: Sinus Asperitatis

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



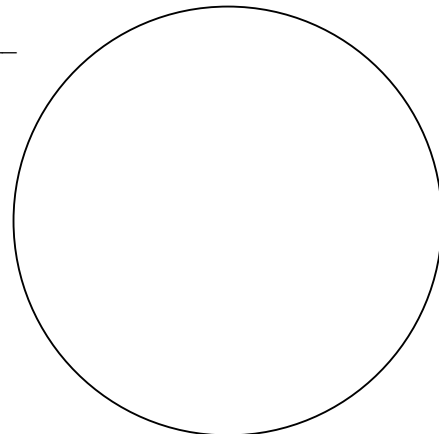
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 43: Plinius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

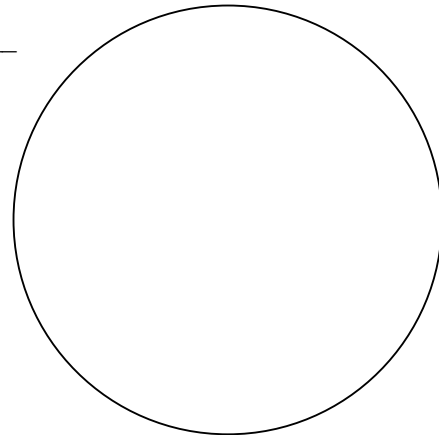
Objective 44: Lamont, Arago, & Ross

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| C4 | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



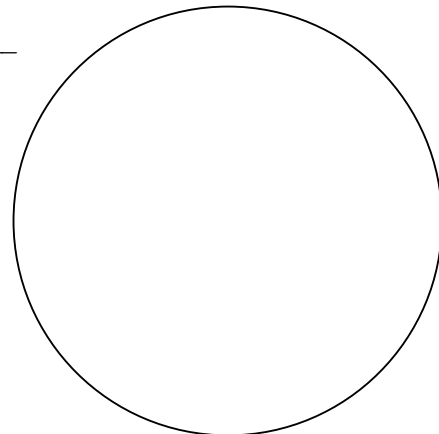
Objective 45: Moltke & Rimae Hypatia

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



Objective 46: Zagut, Rabbi Levi, & Lindenau

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 47: Delambre

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 48: Aristoteles & Eudoxus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| R4 | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 49: Sacrobosco & Playfair

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 50: Maurolycus & Barocius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 51: Gemma Frisius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 52: Montes Haemus & Mare Serenitatis Lacus Group

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



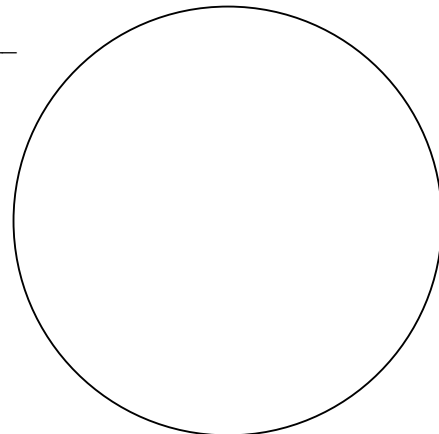
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 53: Rima Ariadaeus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 54: Abulfeda & Catena Abulfeda

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 55: Abenezra & Azophi

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



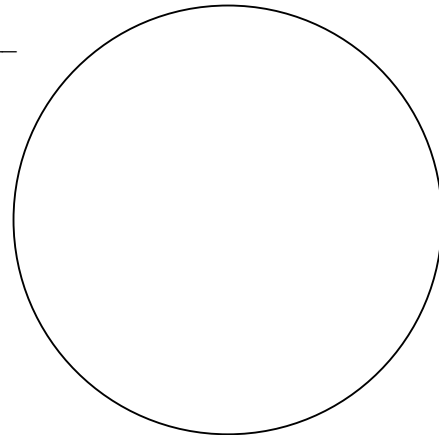
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 56: Dorsum von Cotta & Dorsum Buckland

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



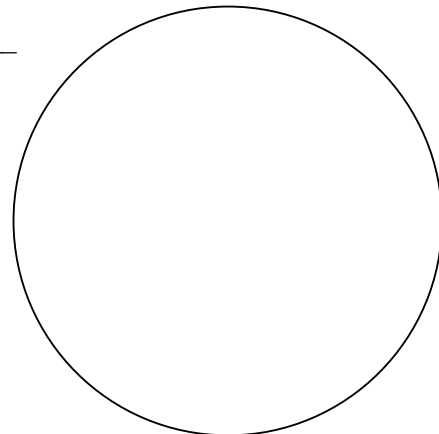
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 57: Linné

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 58: Cuvier

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes



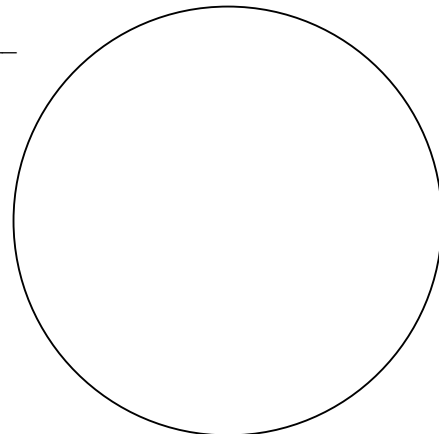
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 59: Manilius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 60: Montes Caucasus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 61: Rima Hyginus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 62: Stofler & Faraday

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| R4 | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 63: Airy, Arglander & Vogel

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

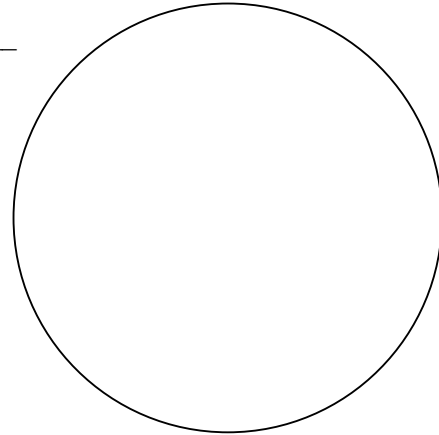
Objective 64: Rimae Triesnecker

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



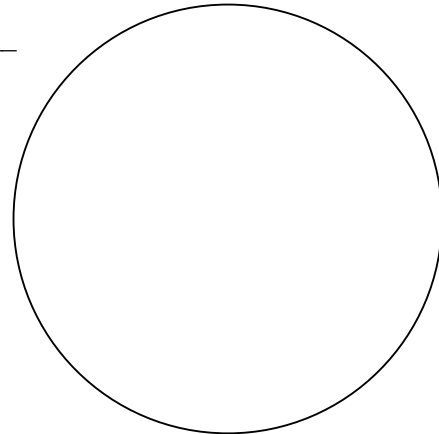
Objective 65: Hipparchus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



Objective 66: Albategnius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 67: Werner & Aliacensis

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 68: Montes Alpes & Vallis Alpes

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



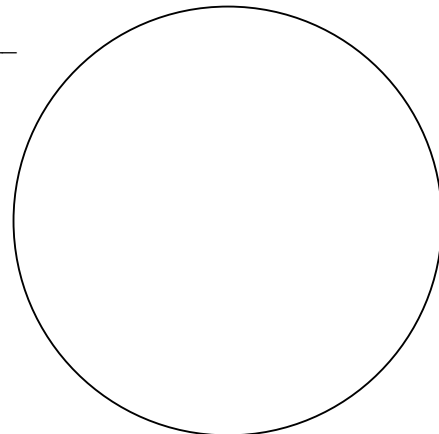
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 69: Aristillus & Autolycus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 70: Montes Apenninus & Apennine Bench

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 71: Walther (Walter before 1979)

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



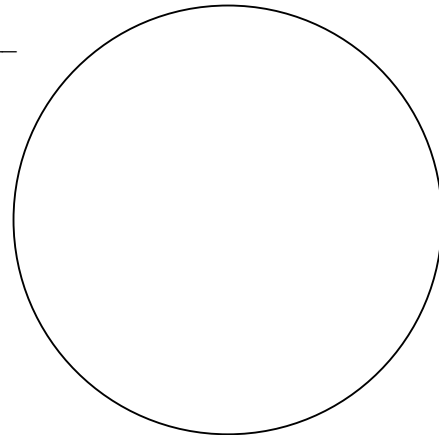
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 72: Huggins, Nasireddin, & Miller

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



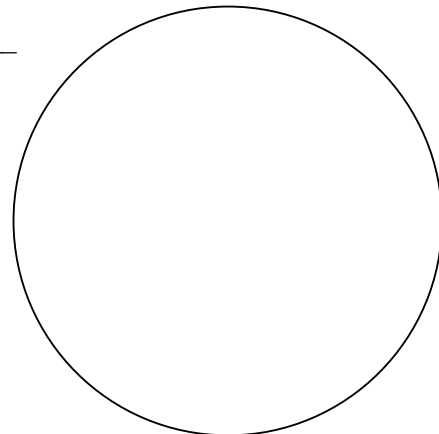
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 73: Regiomontanus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

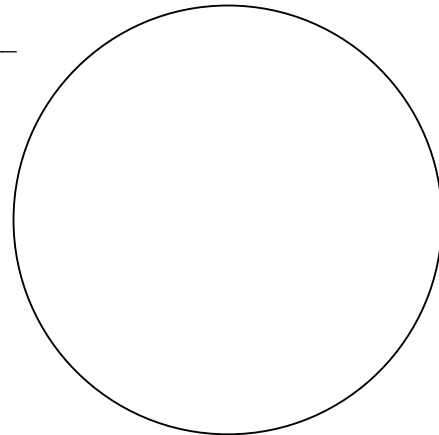
Objective 74: Arzachel

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



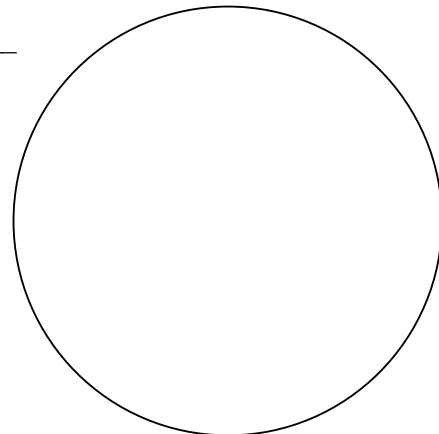
Objective 75: Ptolemaeus & Alphonsus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



Objective 76: Goldshmidt

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 77: Montes Spitzbergen & Mons Piton

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 78: Archimedes & Montes Archimedes

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 79: Deslandres

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 80: Moretus & South Polar Region

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 81: Maginus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 82: Davy & Catena Davy

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 83: Rupes Recta

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 84: Mons Pico & Mons Teneriffe

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



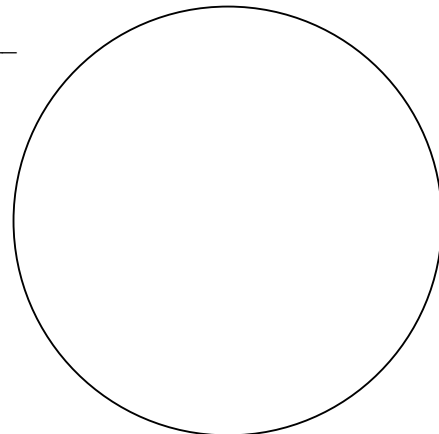
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 85: Plato

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 86: Tycho

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 87: Eratosthenes

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



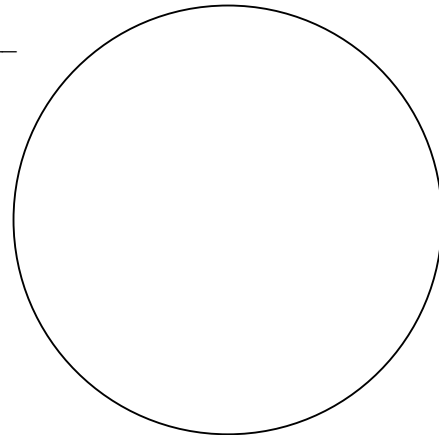
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 88: Gauricus & Wurzelbauer

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



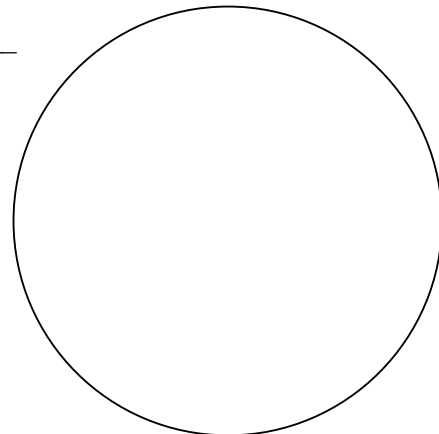
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 89: Timocharis

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 90: Pitatus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



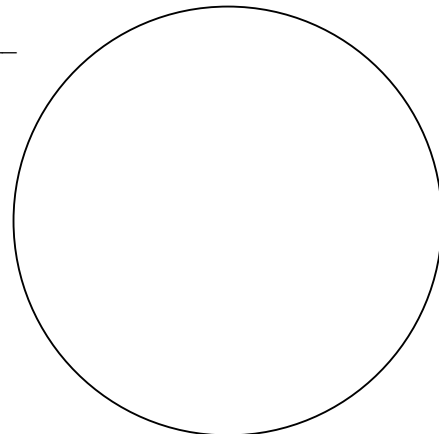
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 91: Stadius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 92: Clavius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 93: Fra Mauro Formation

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 94: Montes Recti

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 95: Copernicus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 96: Mare Imbrium / Eratosthenes / Copernicus System

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| R4 | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 97: Wilhelm & Heinsius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 98: Blaucanus & Scheiner

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 99: Longomontanus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 100: Bullialdus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



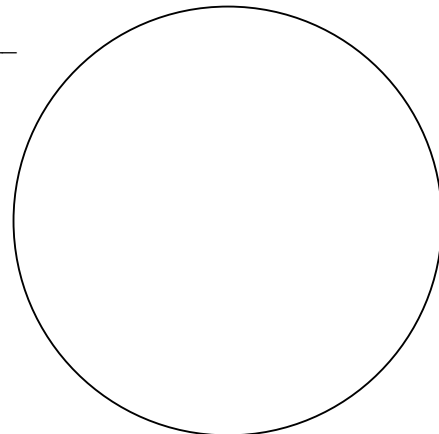
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 101: Kies, Mercator, & Campanus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 102: Mare Cognitum & Kuiper

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____

Objective 103: Reinhold & Lansberg

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



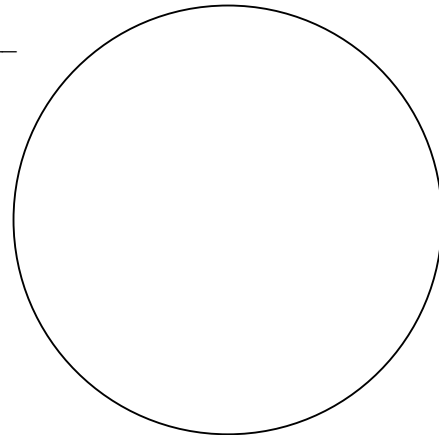
Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____

Objective 104: Dorsum Zirkel & Dorsum Heim

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



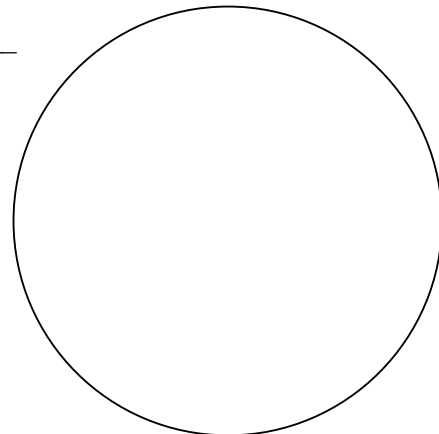
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 105: Montes Carpatus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 106: Sinus Iridum

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



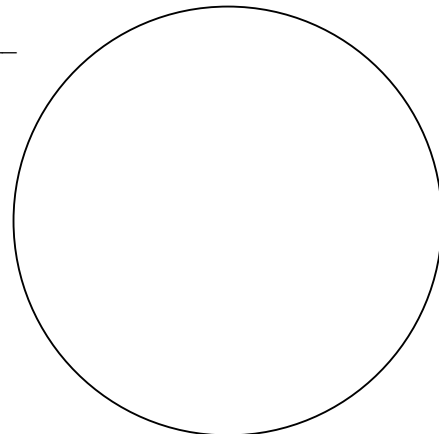
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 107: Klaproth & Casatus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 108: Palus Epidemiarum

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 109: Lacus Timoris

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 110: Montes Riphaeus

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 111: Hortensius & Hortensius Domes

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 112: Mare Insularum Volcanic Complex

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 113: Promontorium Kelvin & Rupes Kelvin

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 114: Mons Delisle & Mons Vinogradov

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 115: Kepler & Encke

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 116: Gassendi

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



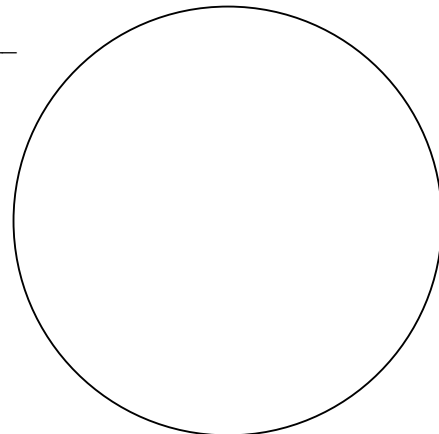
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 117: Mons Gruithuisen Gamma & Delta

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 118: Schiller & the Schiller-Zucchius Basin

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 119: Montes Harbinger

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



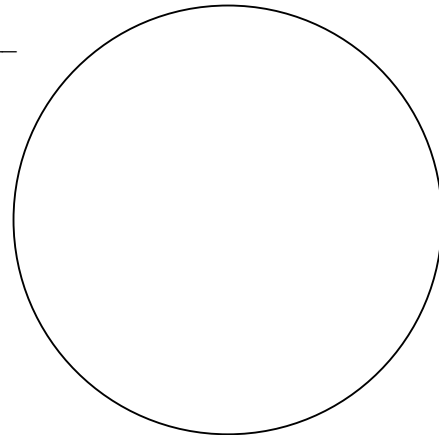
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 120: Letronne & Flamsteed

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



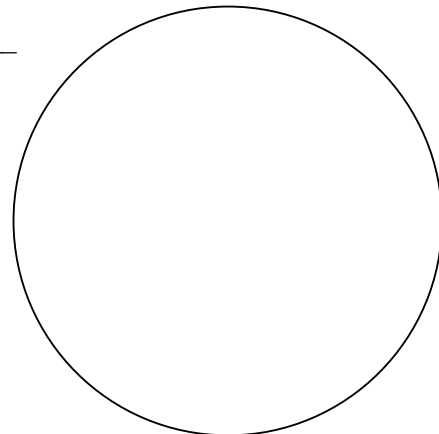
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 121: Rupes Liebig

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 122: Aristarchus Plateau & Vallis Schröteri

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



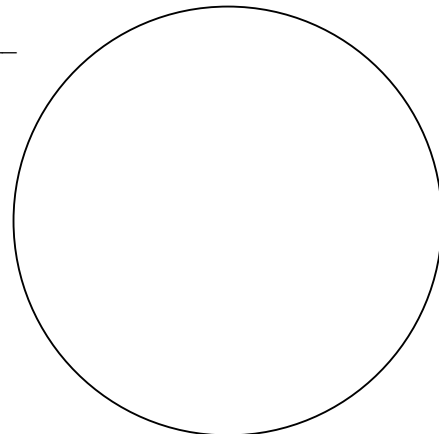
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 123: Mersenius & Rimae Mersenius

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 124: Billy & Hansteen

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 125: Zucchius, Bettinus, & Kircher

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations (None) | Date | Time |
|-------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 126: Marius & Marius Hills

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| C3 | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 127: Schickard & Lacus Excellentiae

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| R4 | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 128: Vieta & Fourier

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 129: Phocylides & Wargentín

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 130: Mons Rümker

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



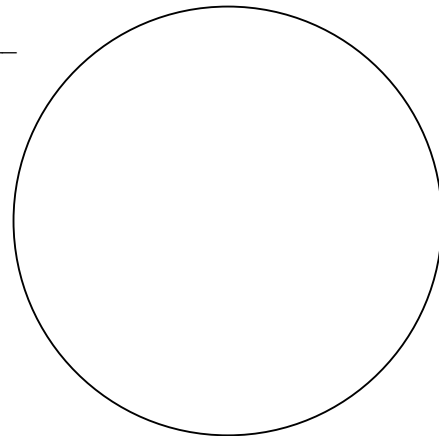
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 131: Reiner Gamma & Galilaei

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| R4 | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

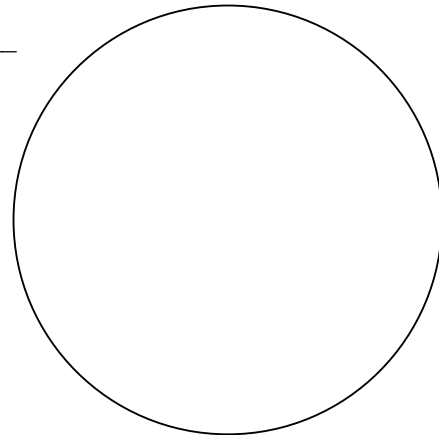
Objective 132: Sirsalis & Rimaes Sirsalis

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



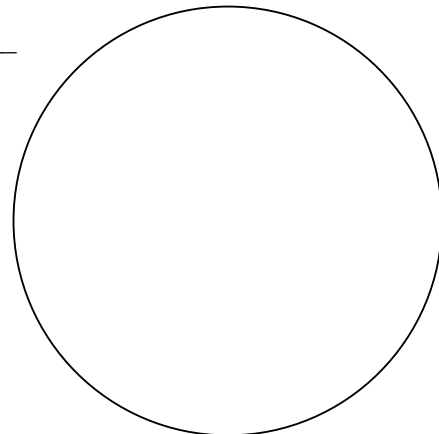
Objective 133: Pythagoras, Harpalus, & Bouguer

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| R3 | | |
| R4 | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



Objective 134: Grimaldi

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective 135: Lacroix & Southwestern Limb Region

| Required Observations | Date | Time |
|-----------------------|------|------|
| R1 | | |
| R2 | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

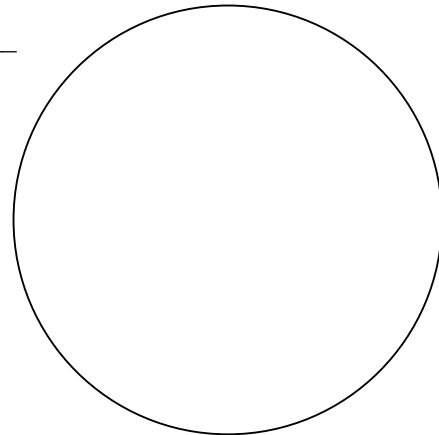
Objective L1: Mare Australe

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



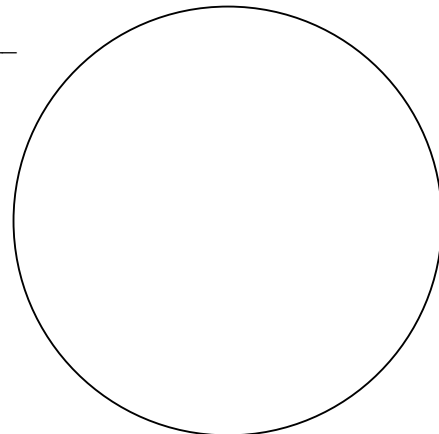
Objective L2: Mare Marginis

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |

Notes

Seeing: 1 2 3 4 5
Transparency: 1 2 3 4 5
Telescope: _____
Magnification: _____



Objective L3: Mare Smythi

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
| | | |
| | | |
| | | |
| | | |

| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| | | |
| | | |
| | | |

Notes



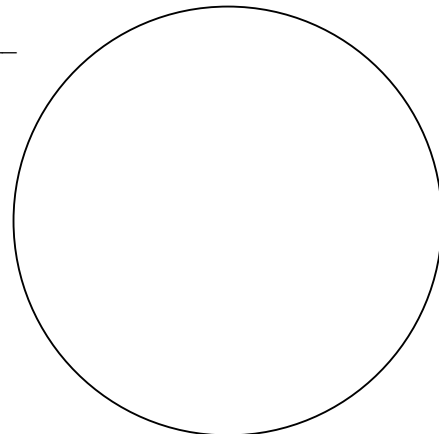
Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective L4: Hubble

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
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| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
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Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective L5: Gartner & Democritus

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
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| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
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Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective L6: Markov

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
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| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
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Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective L7: Seleucus

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
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| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
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Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective L8: Bailly

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
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| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
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Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective L9: Ulugh Beigh & Aston

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
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| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
| C2 | | |
| | | |
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Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

Objective L10: Mare Orientale

| Optional Challenge Objective | Date | Time |
|------------------------------|------|------|
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| Challenge Observations | Date | Time |
|------------------------|------|------|
| C1 | | |
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Notes



Seeing: 1 2 3 4 5
 Transparency: 1 2 3 4 5
 Telescope: _____
 Magnification: _____

