

Astronomy 101 Project: Analysis

Name: _____

Synodic Period Estimate 1 - Phases:

first quarter Moon, date 1	
first quarter Moon, date 2	
Estimate #1: days elapsed between phases	

Synodic Period Estimate 2 - Rise Times:

Week	chosen observation date	estimated rise time
Week 1		
Week 2		
Week 3		
Week 4		
Week 5		
Week 6		

observations	number of days	rise time difference (minutes)	rise time change per day (minutes/day)
1 and 2			
2 and 3			
3 and 4			
4 and 5			
5 and 6			

average rise time change per day (min/day)	
Estimate #2: days to change rise time by 1,440 min.	

Synodic Period Estimate 3 – Stellarium:

New Phase	date	time
date 1		
date 2		

Estimate #3: Stellarium
Time elapsed (days, minutes)

STOP! Have your lab instructor approve your work.

Initials: _____

Estimates Converted to Minutes:

Synodic Period	Converted to minutes
Actual Synodic Period: 29.5306 days	
Synodic Period Estimate #1: Phases	
Synodic Period Estimate #2: Rise Times	
Synodic Period Estimate #3: Stellarium	

Synodic Period Error	Percent Error
Error For Estimate #1	
Error For Estimate #2	
Error For Estimate #3	

List all the constellations traversed by the Moon during the six weeks of observations:

Sidereal Period Calculations:

Use the first five constellations the Moon entered during the six weeks of observations.

Entered Constellation	Date 1	Date 2	Sidereal Period
Sagittarius			
Capricornus			
Aquarius			
Pisces			
Aries			
Average Sidereal Period			
Actual Sidereal Period			27.322 days
Percent Error			