Homework

Group 17’s Members                     Matriculation Number
HO KWAN AIK                           U059112E
LEE LIEYING KELVIN                    U047761B
NG SHILIN SHIRLEEN                    U059214B
SHANG JIA SHUN                       U046406U
YE PEIFEN MELISSA                    U059208B
**Brief Description**

Seven observations of the Moon were made in the course of the eighth month of the Chinese calendar.

For each observation, the following were included:

a) Photo of the Moon.

b) Time at which the photo was taken.

c) Age of the Moon by indicating the day of the month in the Chinese calendar

d) Azimuth and altitude

e) The tilt of the moon for those close to the horizon.

f) General observation and feelings during the photo taking.

**Special Thanks**

We would like to thank Shang Jia Shun for using his wonderful 5.1 mega-pixel Sony DSC-H1 and tripod stand to take such professional looking pictures. Not forgetting either that all map images are courtesy of Streetdirectory.com – You’ll be lost without it!
## Moon Rise/Set Timings for the Month of September

<table>
<thead>
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<th>Day</th>
<th>Moon Rise</th>
<th>Moon Set</th>
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Data courtesy of [http://aa.usno.navy.mil/cgi-bin/aa_rstablew.pl](http://aa.usno.navy.mil/cgi-bin/aa_rstablew.pl)
Day 1 (4th September 2005)
First day of the eighth month in the Chinese Calendar (八月初一)

Location:

![Figure 1: Linkway between EA and E1A, NUS](image)

Weather: Very cloudy, especially above the western horizon

Time: 19 38hrs

Observation: We were not able to even observe the sunset due to the thick clouds covering the horizon. Half an hour after the sky darkened, we still could not see any glimpse of the moon. Since the moon should set just after the sun, we were certain that the moon could not be sighted today. Darn it!

Azimuth: Cannot be determined

Altitude: Cannot be determined
Day 2 (5th September 2005)
The second day of the eighth month of the Chinese Calendar (八月初二)

Location:

Weather: Clear, except near horizon

Time: 19 34 hrs – 19 36 hrs
Observation: Initially, the moon was not visible as the sun had not set completely. Undeterred, we waited and waited and waited… After an agonizing 20 minute wait, we were about to give up and leave. Suddenly, to our sheer delight, we spotted a very thin and faint waxing crescent at 30° tilt to the horizontal!!! YEAH BABY!! THE MOON!!!

Azimuth: 240°

Altitude: 10°
Day 3 (6th September 2005)
The Third day of the eighth month of the Chinese Calendar (八月初三)

Location:

Weather: Relatively clear skies

Time: 20 30hrs

Observations: We rushed out of the lecture theatre immediately after the end of the Heavenly Mathematics lecture to get a good spot on the Science – Computing bridge. There it was in the sky… tilted at 30° to the horizontal. After a few shots, we decided to move to higher grounds to get a better shot. Alas, by the time we shifted, the bright and clear moon disappeared behind clouds near the horizon! No landscape shot for today. ☹️
**Azimuth:** 285°

**Altitude:** 30°

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**Day 4 (7th September 2005)**

The Fourth day of the eighth month of the Chinese Calendar (八月初四)

**Location:**

![Location Map](image)

Fig 4: Blk 715 Clementi West St 2 10th Floor Corridor

**Weather:** Clear skies

**Time:** 19 48 hrs and 19 51 hrs
Observations: Today was a mighty good day for photos! The moon was smiling happily at us and we smiled back 😊. It was a waxing crescent observed at 30° tilt to the horizontal!!! We noticed a little bright dot next to the crescent. A quick check told us that it was pretty Venus, the evening star.

Azimuth: 250°

Altitude: 30°
First quarter (11\textsuperscript{th} September 2005)
The eighth day of the eighth month of the Chinese Calendar (八月初八)

\textit{Location:}

![Map](image)

Fig 6: Blk 715 Clementi West St 2 10\textsuperscript{th} Floor Corridor

\textit{Weather:} Overcast

\textit{Time:} 2125hrs
Observation: The sky was very cloudy today and the clouds obscured the moon. The moon was only totally visible for short periods of time. More than an hour later, with many cloudy moon photos, we FINALLY managed to obtain a few clear shots of the moon. YAY! 😊

Azimuth: 220°

Altitude: 50°
Full moon (19th September 2005)
The sixteenth of the eighth month of the Chinese Calendar (八月十六)

Location:

Weather: Clear

Time: 04 34hrs
Observations: Feeling really sleepy and took a few photos of the streetlamp before realizing it’s not the moon!!! No worries, what you see here is really the moon. Big, nice and round!! Happy Mid Autumn Festival!

Azimuth: 265°

Altitude: 50°

Last quarter (25th September 2005)
The twenty-second day of the eighth month of the Chinese Calendar (八月二十二)

Location:

Fig 8: Blk 717 Clementi West St 2 Void Deck
Weather: Clear

Time: 06 27hrs

Observations: Feeling dreadfully tired now and I haven’t slept all night. Been up reading Heavenly Mathematics notes the whole night… Lo and behold! I see the moon!!! Finally! It’s such a pity that that’s the last one for our homework. 😊 We had so much fun doing it!

Azimuth: 10°

Altitude: 60°