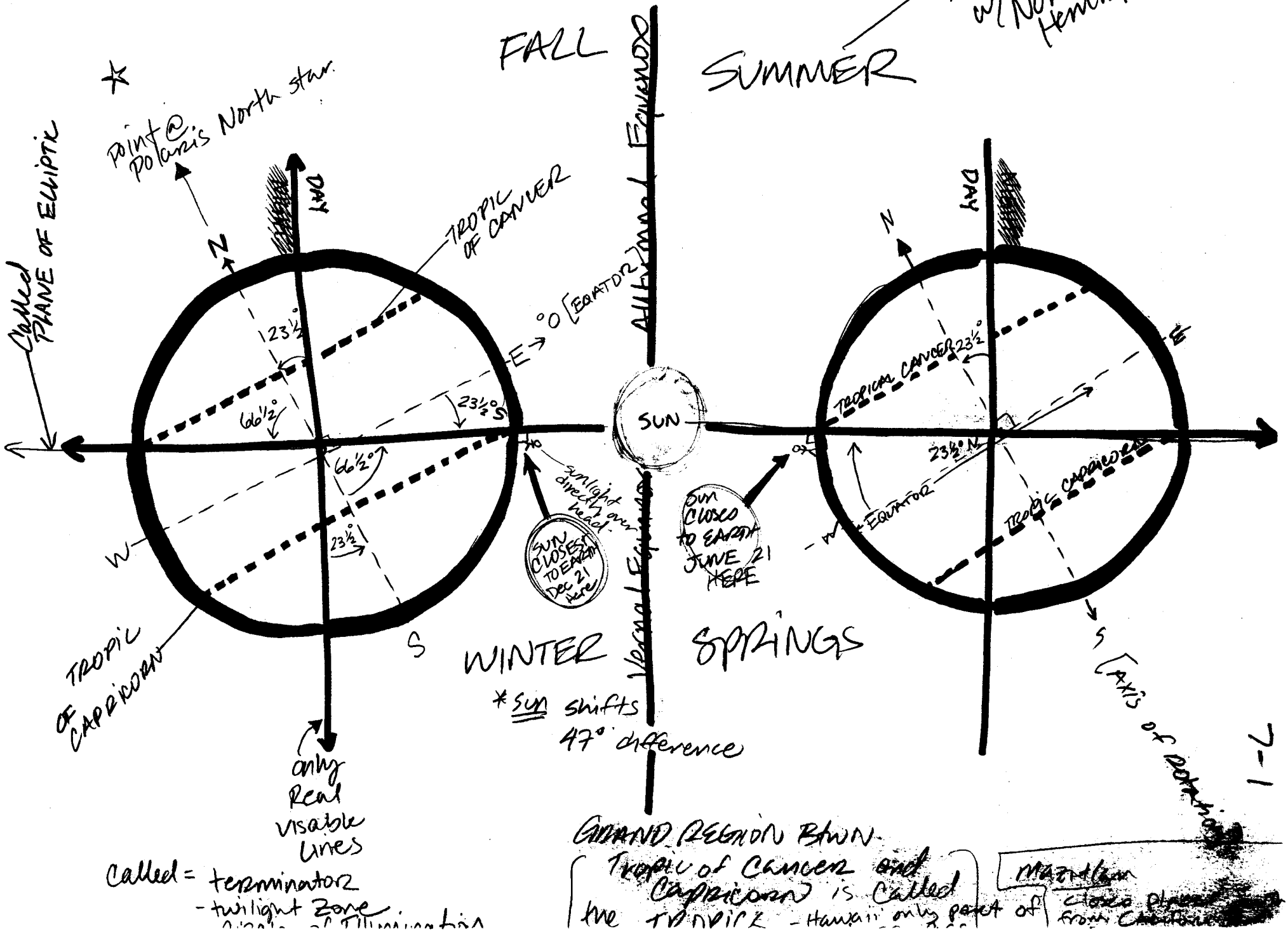
SEASONS



Called = terminator
- twilight Zone

GRAND REGION BTWN Tropic of Cancer and Capricorn is Called the TROPICS - Hawaii only part of

Matthew closer planet from

2/15/00 7-2

MAPS/PROJECTIONS
What's A day?

Gregorian Calendar = STANDARD Calendar
↳ interpretation of Natural Things
of the Logical Year

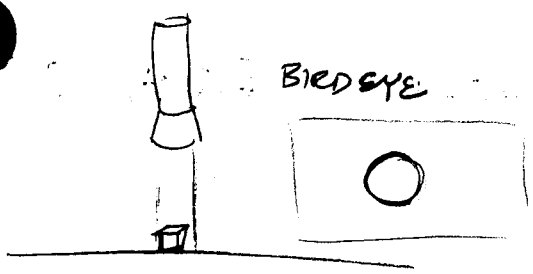
This Leap Year Soo.
Important: - Because -
Is Leap year

THE SEASONS [very important]

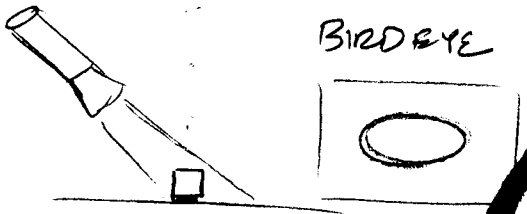
<Electronic Card → Catelog>
- IN Library

[PRE test Go TO Library or COMPUTER.
there are (3) available.

[1593.
Check out pretest
@ Library make
Copies.]



What determines Amount of
Energy ground absorbs.



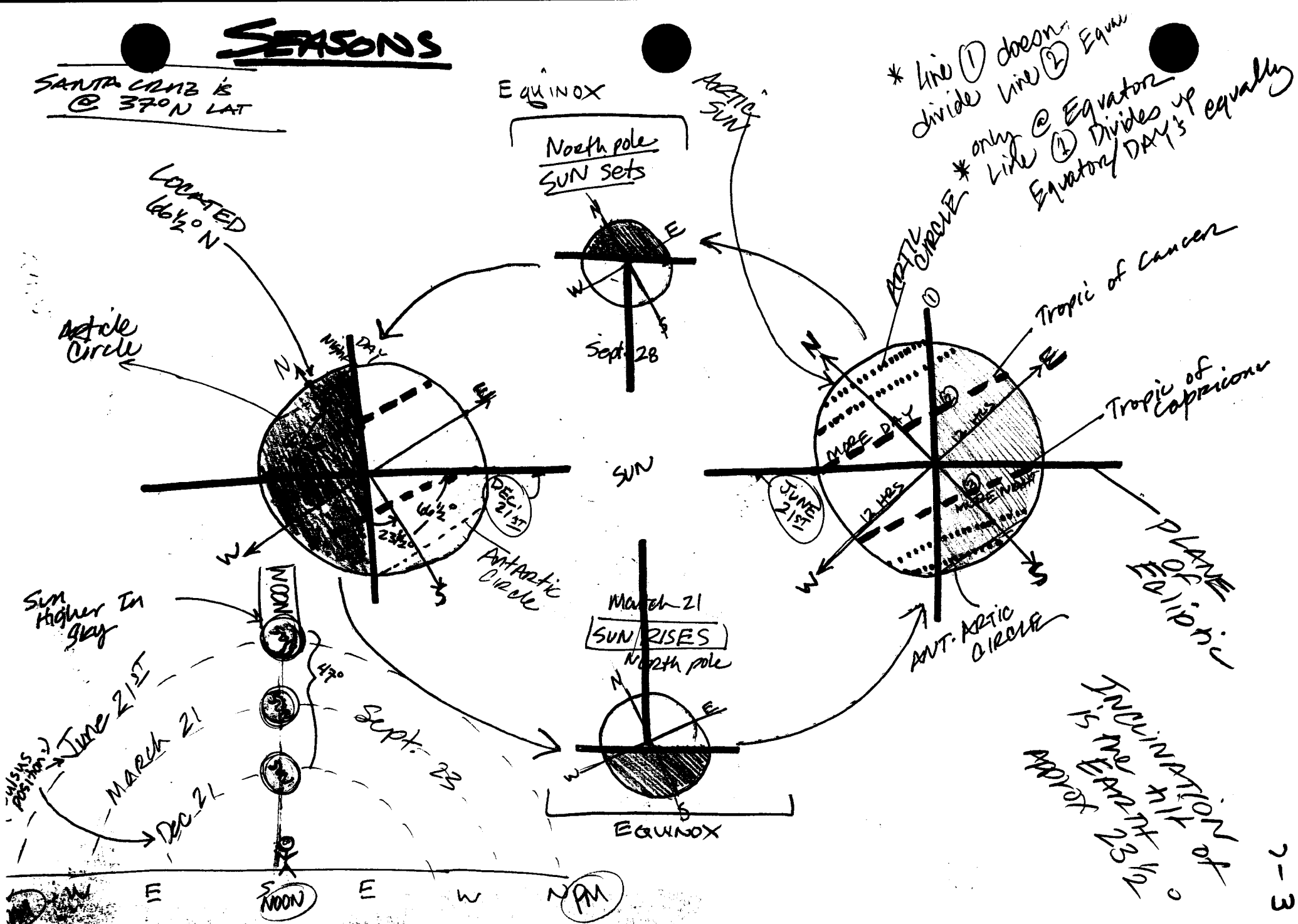
4. Angle of Sun.
2. Duration of How Long
Sun is out [Day Light]

@ Equator
- Seasons don't really <Exist> Not much distinction
- 12 Hrs. Day / 12 Hr. Night time

Higher you move up in latitude = more diverse Seasons.

SEASONS

SANTA CRUZ IS @ 37°N LAT



Seasons turning (Dec. 21) <Santa Nilla Party>
Romans

v-3

(3) 2/15/00

HOW TO CALCULATE HOW HIGH SUN IS - IN SKY

(HW #6) [Sun today is 12° south]

THINGS YOU NEED

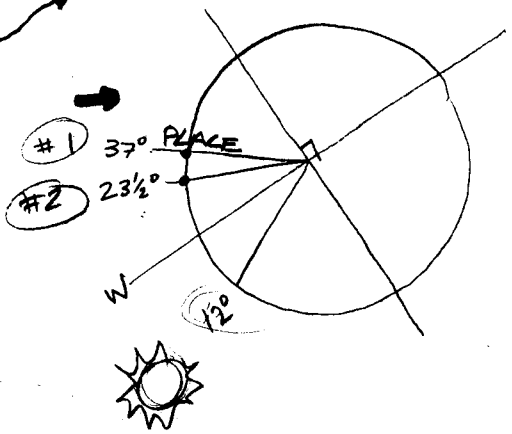
1.) DATE, PLACE (LAT°) → SANTA CRUZ 37°N, JUNE 21ST

2.) LAT° OF ☀ SUN. ON THAT DATE → SUN is @ 23½°N

[Look @ Analemma]

3.) HOW FAR APART ARE THEY IN DEGREES°

#1 and #2



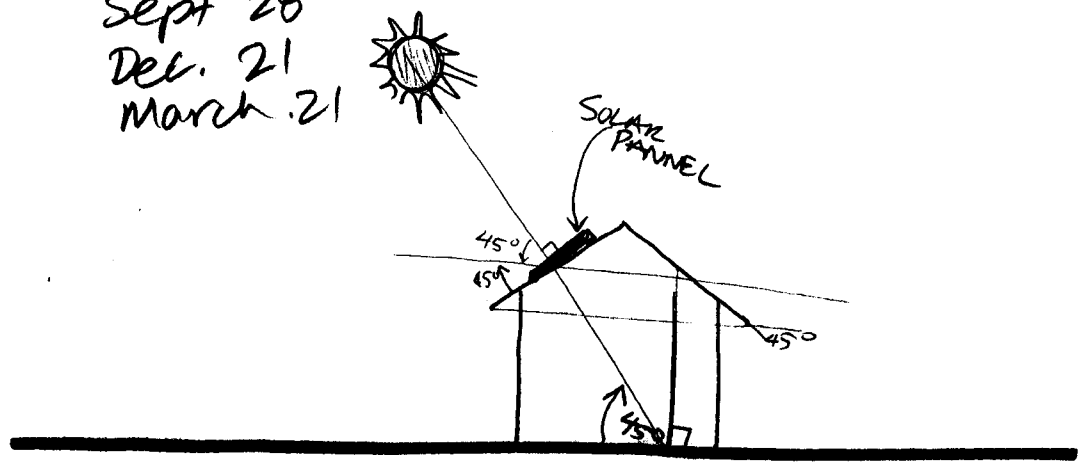
37°
- 23½°
13½°

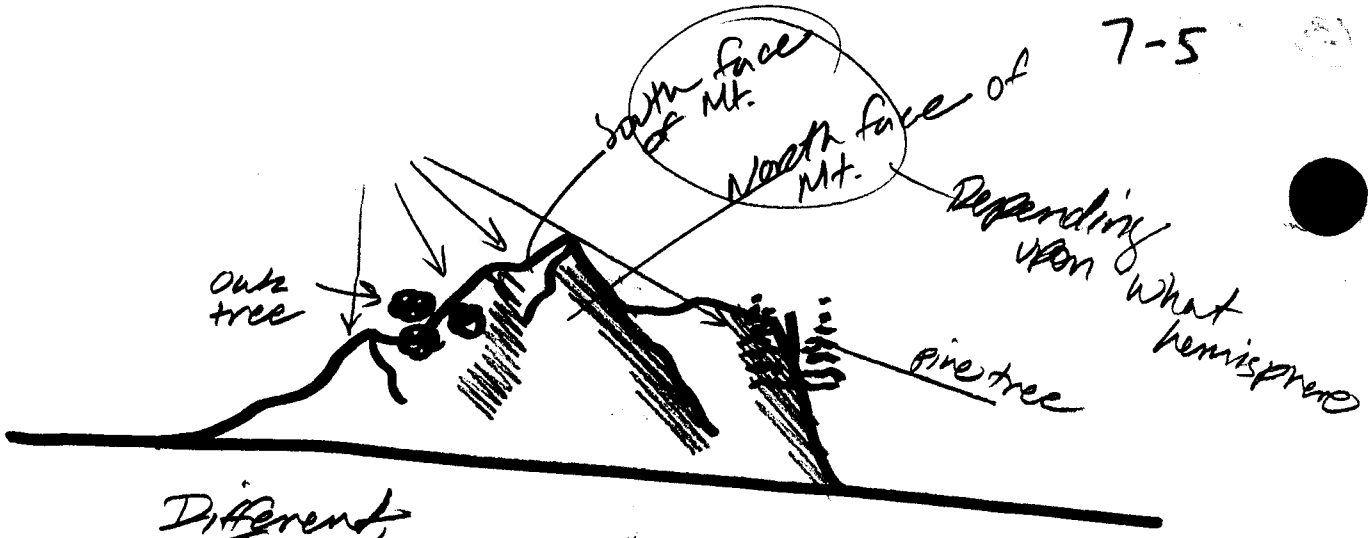
4.) 90° - (#3) = Answer

90°
- 13½°
[76½°] = Highest SUN will ever be

Calculate the Hight of SUN in Santa Cruz @ 37°

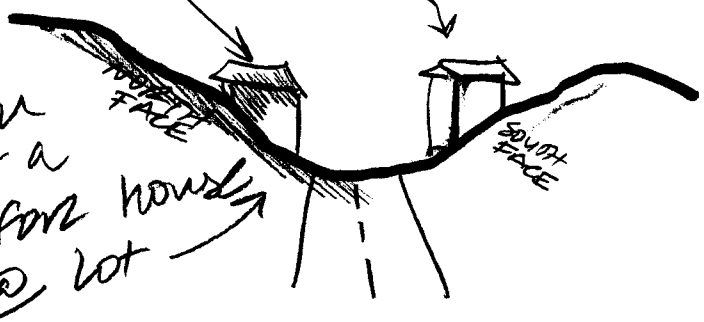
for Feb. 15
June 21
Sept 28
Dec. 21
March 21





Different Trees grown to different amount of sunlight

This House cost MORE to Heat than



If you Buy a lot for house look @ lot

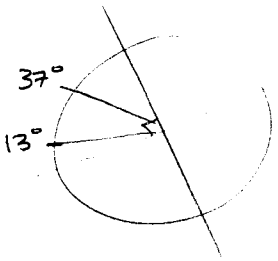
Homework

Stephanie Baker
7-6

CALCULATE HEIGHT OF SUN @ SANTA CRUZ > 37°

Feb. 15

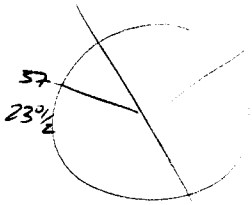
1. Date = Feb. 15, SC @ 37°
2. Lat° ⊥ SUN → 13°
3. 37 − 13 = 24°
4. 90° − 24° = 66°



(47° SUN SHIFTS)

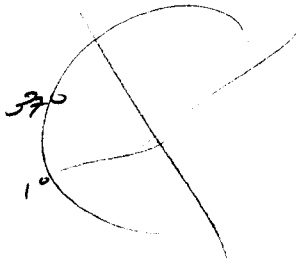
June 21

① DATE June 21st SC. @ 37
② LAT° ⊥ → 23½°
③ 37° − 23½° = 13½°
④ 90° − 13½° = 76½°



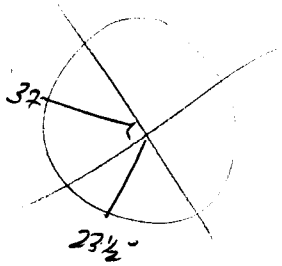
Sept 28

① DATE SEPT. 28 SC @ 37°
② LAT° ⊥ → 1°
③ 37° − 1° = 36°
④ 90° − 36° = 54°



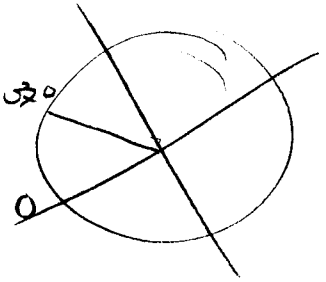
Dec. 21

① DATE DEC 21 @ SC 37°
② LAT° ⊥ → 23½° S
③ 37° − 23½° = 60½°
④ 90° − 60½° = 29½°



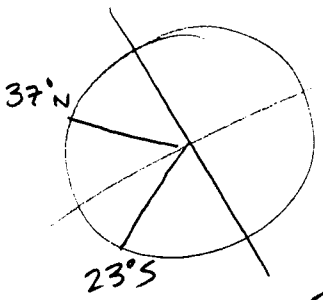
March 21st

① DATE MARCH 21st SC @ 37°
② LAT ⊥ → 0°
③ 37° − 0° = 37°
④ 90° − 37° = 53°

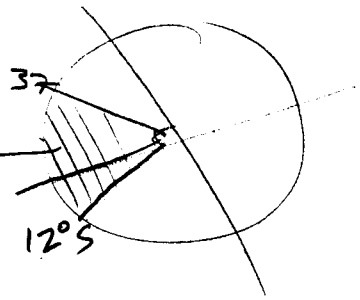


NOTES

Review SUN OVERHEAD

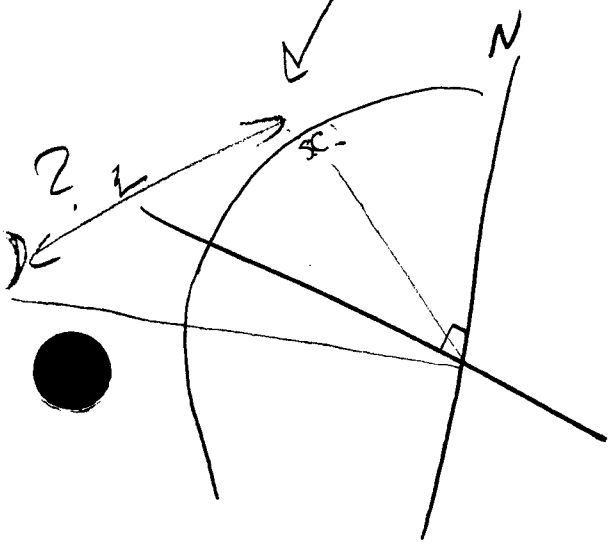


90
$-\ 49^{\circ} =$
41°



37
+12
49

$90^{\circ} - 49 = 41^{\circ}$



2/17/00 TIDE/MOON/TIME 8-1

What time is it in other places?

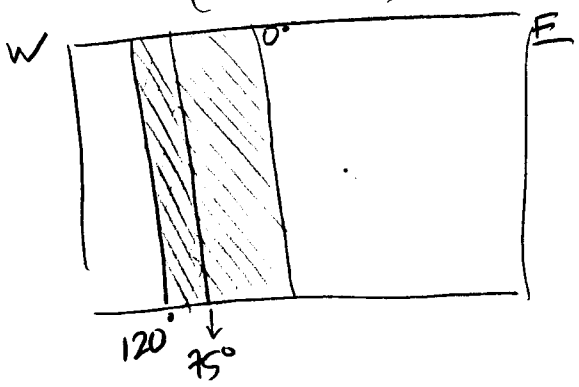
Railroad connected US. together → Thus, NOON @ Different towns — were different. Due to LOCATION — of All towns spread out over US.

Rotates 360° in 24 HRS = Thus $\frac{360^\circ}{24\ \text{HRS}} = \boxed{15^\circ/\text{HR}}$

HOW TO CALCULATE (3):

EX →

1.) time, Place (LONG°) → TUE 3PM SL. (120° W)
2.) LONG.° of place in question → NY. NY → (75° W)
3.) How FAR APART in (LONG°) Are they? → $\begin{array}{r} 120^\circ \\ -\ 75^\circ \\ \hline 45^\circ \end{array}$



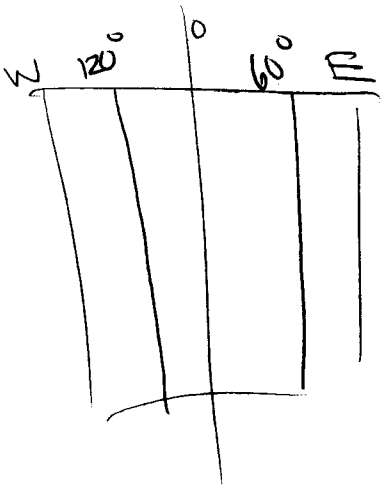
4.) $\frac{(\#3)}{15^\circ} \longrightarrow \frac{45^\circ}{15^\circ} = 3\ \text{HRS}$

5.) IF GOING....
EAST → ADD HRS
WEST → SUBTRACT HRS.

ANSWER = 3 HRS + 3 HRS = 6 HRS

What time in Moscow = 60° E

1.) Tue. 3PM SC. @ 120° W
2.) Place(?) ⟶ 60° E
3.) 120° + 60° = 180°



4.) $\frac{180}{15}$ = 12$_{PM}$ + 3. = 3AM

Find time in - London 0° ⟶
- Hawai'i = 150° W ⟶ 1PM T
- Perth = 120° E ⟶ 7AM W

Time Zones - (1918)

everyone agree that ~~there will~~ be a set time

People who travel

P. 25

INTERNATIONAL DATE LINE
Roughly follows 180°

Travel ⟶ ADD HRS
W ——— E
⟵ Travel west subtract 1

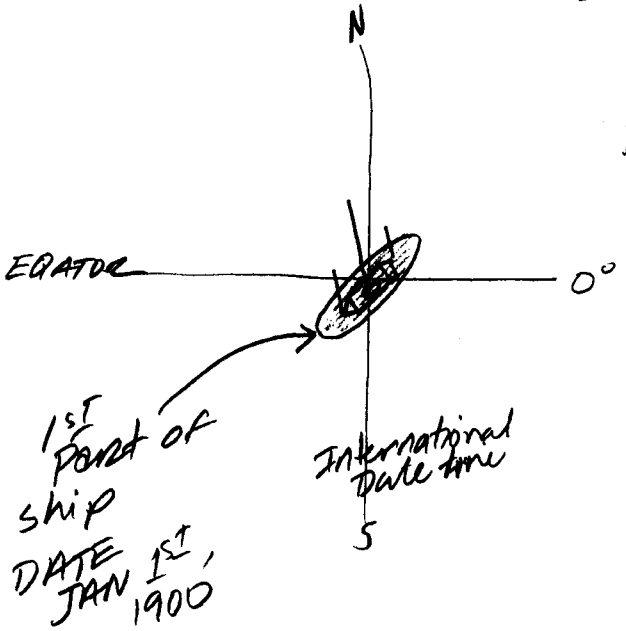
PRIME MERIDIAN @ 0°

you Lose a day when you travel WEST

INTERNATIONAL DATE LINE

time stays same Just change the day.

"YOUR LOSS OF A DAY"



DEC. 30, 1899

DAY LIGHT SAVINGS TIME

- Save daylight - take full Advantage of Daylight.
- By changing clock -

- length of Day Doesn't change much time @ Equator.

Usually → 12 HRS = ☀
12 HRS = ☾★

TIDES

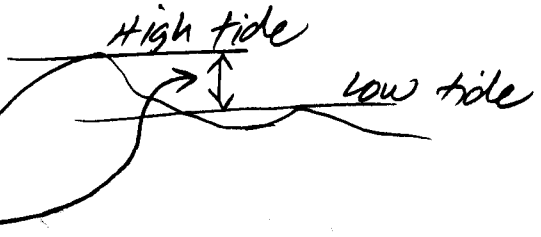
what makes the tides?

[No Relationship BTWN tides and/or EARTHQUAKES]

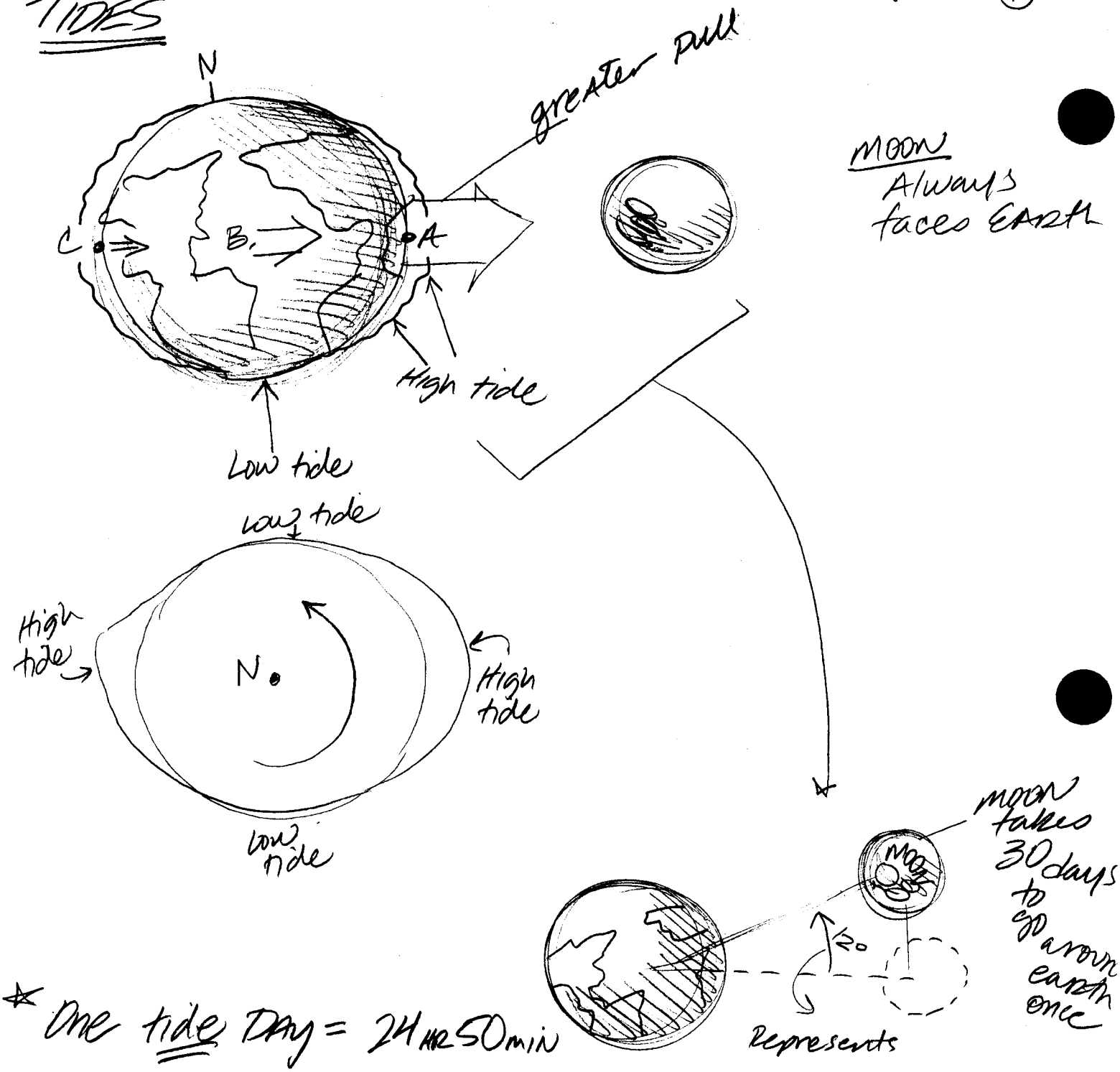
Tide = is effected
- By MOON
- And By SUN

about 1/2 of the SUN Influences the tide
MOON is Majority

- Tidal Range - is



TIDES

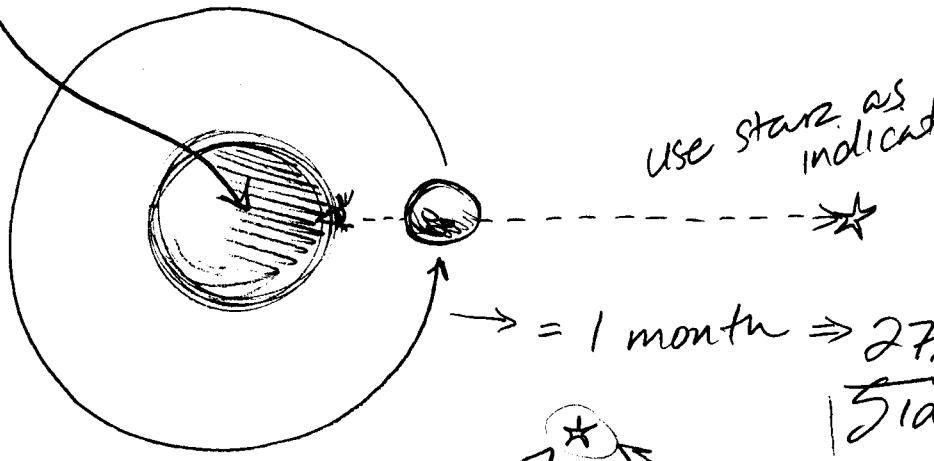


★ One tide DAY = 24 HR 50 MIN

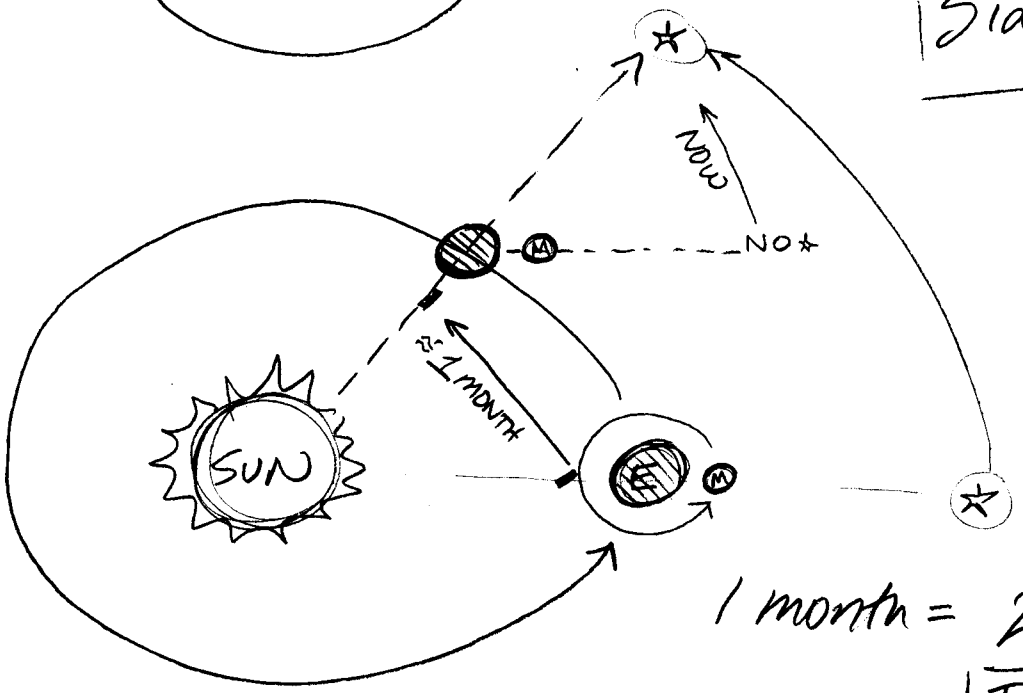
FROM
High tide back to High Tide = 12 HR. 25 MIN
Low ⟶ Low = 12 HR. 25 MIN

FROM
H ⟶ Low
Low ⟶ High ⟩ 6 HR 12½ MIN.

⑤ IF EARTH

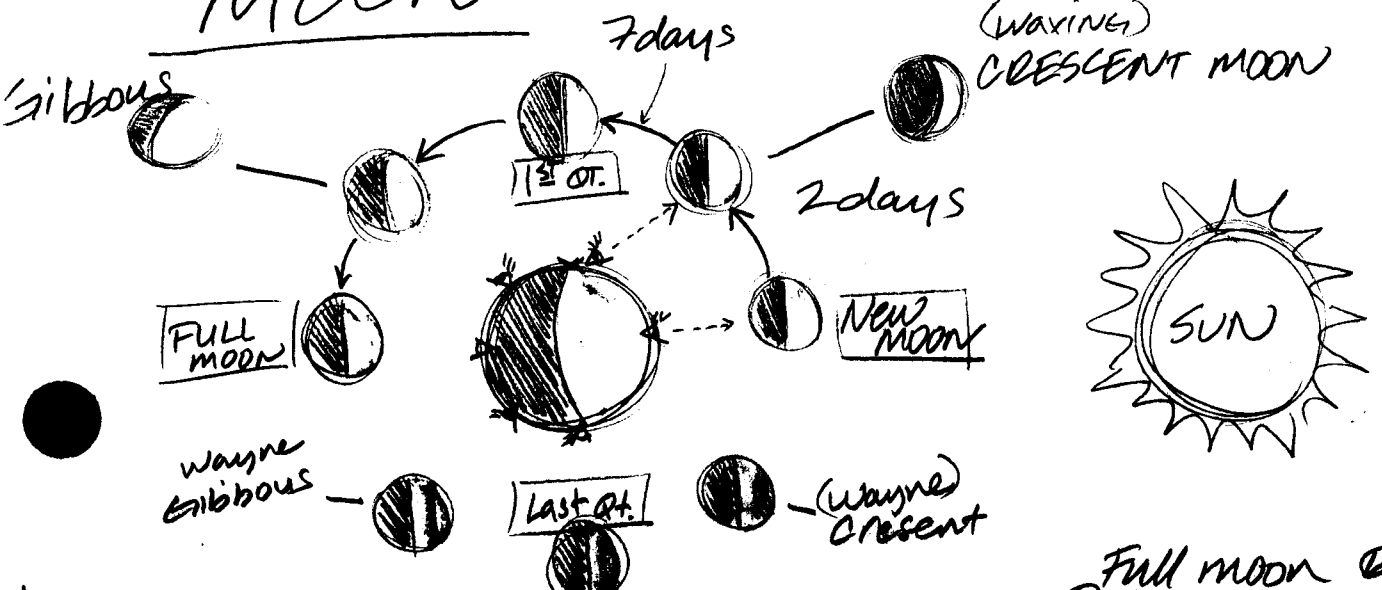


→ = 1 month ⇒ 27.3 days
Sidereal MONTH



1 month = 29½ days
TROPICAL SYNDRONIC

PHASES OF MOON



if MOON - comes out after SUN goes DOWN

Full moon Rises @ SUNSET

* if moon → is not Before SUNSET Before FULL MOON

4) SPRING TIDES → TIDE RANGE (Higher) → = 20% Difference in Range. 8-6 @ FULL / NEW MOON

NEAP TIDES → TIDE RANGE (LOWER) → = 20% Difference in Range @ 1st 1/4 → AND LAST QT.

(We have 2 spring tides and 2 Neap tides) = IN ONE Month.

(Once every 27.3 Days — The moon is closer to EARTH. [PERIGEE])

[Perigee (moon closer to EARTH) — 20% greater than Normal & Apogee (moon Farther away from EARTH) — 20% less than Normal] — difference of distant from MOON — to EARTH

Full moons

Sept. Full moon — Harvest

July Full moon — Thunder moon

~~Feb~~ [2nd Full moon IN SAME MONTH] — Blue MOON

(7) TIDAL WAVES → TSUNAMI WAVE
↳ caused by EARTH QUAKE

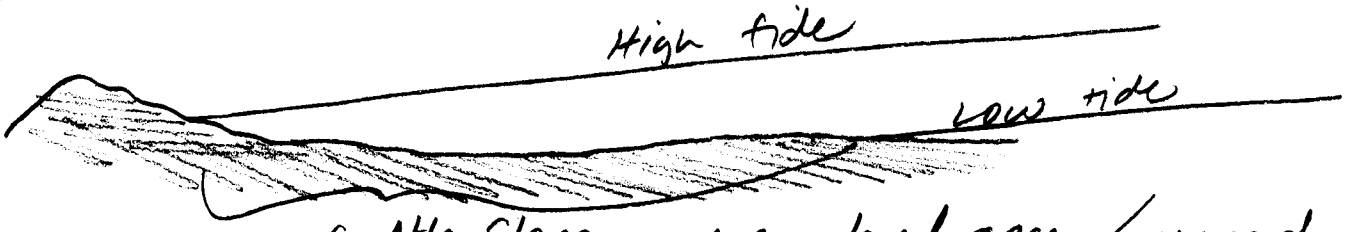
TIDAL BORE
↳ Huge wave made By Wave's from Ocean.

Tide Comes IN → Flood tide

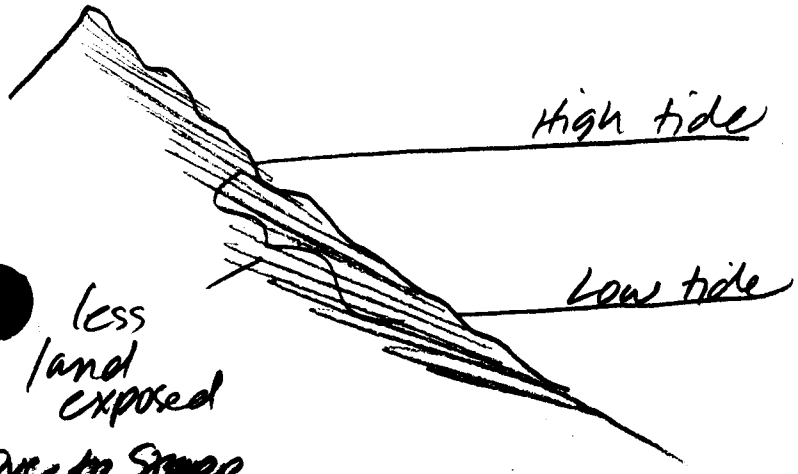
Tide Stops comming IN. → SLACK WATER

Tide goes Out → EBB tide

If coast has gentle slope



gentle Slope = more land open/exposed



less land exposed

Due to Steep Slope

2/22/00
8-8

~~Geography~~ TIDE/MOON/TIME

<Review>

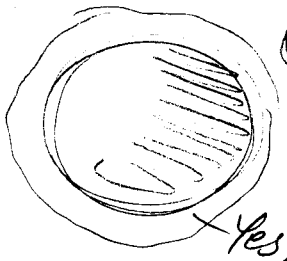
- Ebb Tide → Tide goes out
  Flood tide → Tide goes in
  Slack tide → still H_2O

9-1

WEATHER & CLIMATE

3 major things that Hold up the BIOSPHERE

- BIO GEOGRAPHY (=) BIOSPHERE
  - Atmosphere
  - Hydrosphere
  - Lithosphere



moon is NOT as large as Earth thus, gravitation pull is NOT as strong.

Atmosphere =
Gaseous Combination of gases that surround EARTH.

Refer to AIR =

- ↑ Hot increase temp° = Makes gas molecules travel faster.

Kenetic Energy = Molecules in motion.