



## Today

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- Announcements:
  - HW#10 is due Wednesday Nov. 23.
  - HW#11 will be due Wednesday Dec. 7th
  - Extra credit project on Intelligent Design is available it will be due Dec. 2<sup>nd</sup> at 5:00pm. Please don't wait till the last minute.
  - Final extra Credit Project – “The limits of science” will be due Dec. 9<sup>th</sup> at 5:00pm.
- How much do we know?
- Mystics, Astrology, etc.



## Are there things beyond science?

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- Consciousness – Will it be possible to understand conscious?
- Astrology
- ESP
- Ghosts
- Religion – Can we prove or disprove the existence of God (s)?



## Electrotelepathy

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- Certain signs of the zodiac are able to project electrical signals.
- Often the best are Libra or Gemini
- Demonstration
- There will be plenty of things we don't understand that will seem like magic.



## Astrology

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- The study of the influence of the stars goes back to 4000 B.C.
- There are Hindu, Egyptian, Chinese and Babylonian versions
- We are most familiar with the Babylonian/Greek version based on a sun sign and location of the moon and planets at the time of a person birth.
- Individual horoscopes older than 400 B.C. have not been found.
- The sky is divided into 12 regions. These correspond to the signs of the zodiac.



### Clicker Questions

My opinion of astrology is:

- A). I believe in it and have use it to help make at least one decision in my life.
- B). I believe in it but mostly use it for entertainment.
- C). I am skeptical but think it has some validity.
- D). I don't believe in it at all.



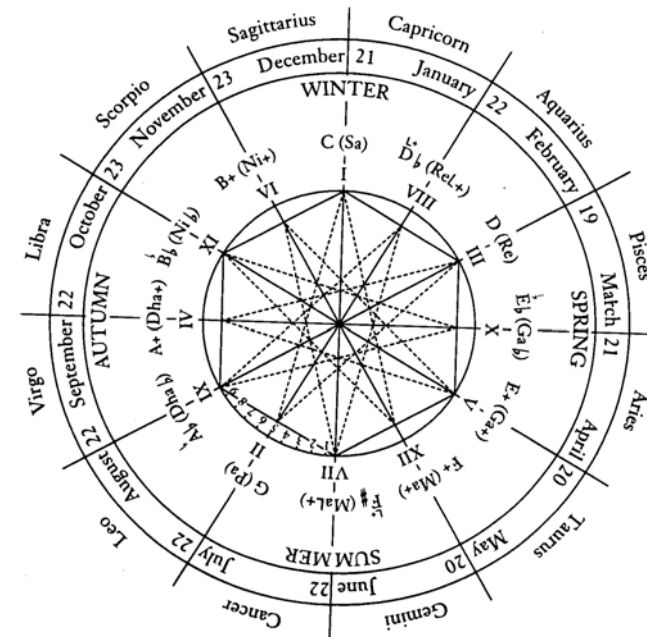
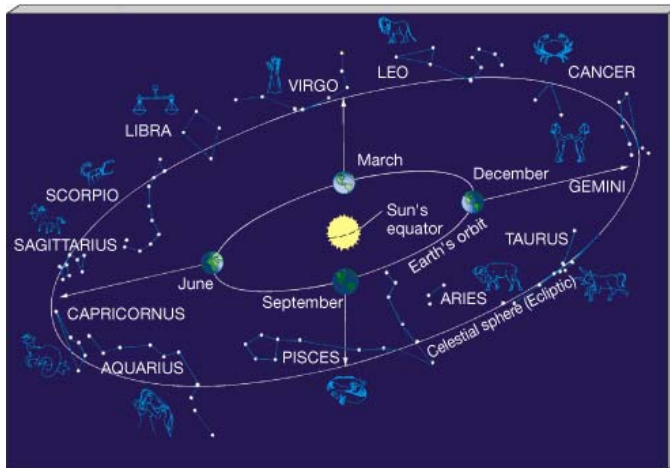
### Sun Sign (e.g. Taurus)

I know what my sign is:

- A). True
- B). False
- C). I don't know if I know

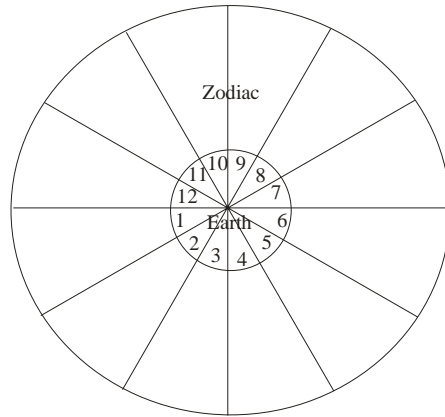


### Sun Signs – Zodiac





### A Reading



- Aries
- Taurus
- Gemini
- Cancer
- Leo
- Virgo
- Libra
- Scorpio
- Sagittarius
- Capricorn
- Aquarius
- Pisces



### Influences

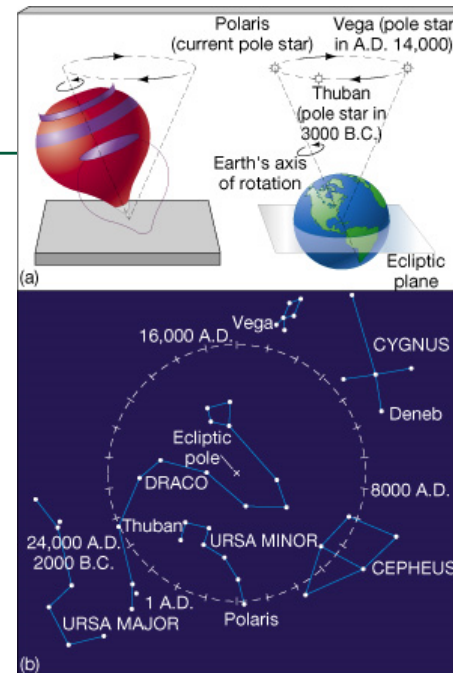


### Tropical Zodiac vs Sidereal Zodiac

- The Tropical zodiac** is the one we are familiar with. It
- The Sidereal zodiac** is used in eastern astrology. It

Dates	Sidereal Sun Sign
15-Apr to 15-May	Aries (Mesham)
16-May to 15-Jun	Taurus (Vrishabham)
16-Jun to 15-Jul	Gemini (Mithunam)
16-Jul to 15-Aug	Cancer (Karkatakam)
16-Aug to 15-Sep	Leo (Simham)
16-Sep to 15-Oct	Virgo (Kanya)
16-Oct to 15-Nov	Libra (Tula)
16-Nov to 15-Dec	Scorpius (Vrischikam)
16-Dec to 14-Jan	Sagittarius (Dhanus)
15-Jan to 14-Feb	Capricornus (Makaram)
15-Feb to 14-Mar	Aquarius (Kumbham)
15-Mar to 14-Apr	Pisces (Meenam)

There is also the conception vs. the birth chart.



The Earth is spinning like a big top. The location of the North Celestial pole changes with time. In 16,000 years, Vega will be the “North Star”

This is called **Precession.**



## The result of precession

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- There are thirteen signs in the current Tropical Zodiac. The 10th sign is Ophiuchus, the Serpent Bearer.
- The signs don't have the same length, Scorpius for example is only seven days long.
- The first sign of the zodiac isn't Aries it is Pisces.
- Aries does not start on the 21st March, it starts on the 19th April.
- In fact all the 'Tropical signs' are now shifted by almost one whole sign in comparison with Reality.



## The response of western astrology

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- Western astrology has no connection whatsoever with the stars.
- Instead the important factor is the Earth's cyclical relationship to Sun. The Earth orbits the Sun once a year: it is this cycle which astrologically affects all of us.
- The cycle starts at the Vernal Equinox and this date marks the first date of the sign of "Aries". The sign of "Aries" has nothing to do with the stars of Aries which are in a different place.
- This is the case with all the other "signs" and the stars.
- There are twelve "signs". They are of equal lengths.
- Our relationship with the Moon and planets is not based on the stars.
- Our relationship with the Moon and planets is based on where they appear to lie relative to our orbit around the Sun.



## Tetrabiblos – Ptolemy 160 AD

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Claudius Ptolemy the 'Father of Classical Astrology' [c 130 - 170 AD] has to say on the subject of the stars and astrology, taken from his master work - and the seminal text of astrology - Tetrabiblos [the Quadpartite Thesis] :

*“As it is next in order to recount the natures of the fixed stars with reference to their special powers, we shall set forth their observed characters in an exposition like that of the natures of the planets, and in the first place those of the ones that occupy the figures in the zodiac itself.”*



## Possible problems with astrology

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- Most studies do not find a link between “readings” and a personal description.
- Why birth rather than conception?
- What if a person is born on the Moon, or Mars?
- Why are there so many different versions? A birth chart or a conception chart are different. Which is correct?



## An example when astrology could be bad

From the Insurance Journal:

<http://www.insurancejournal.com/magazines/southeast/2005/09/19/features/60506.htm>

Cancer has the highest reported incidence of accidents.

Pisces has the lowest incidence of accidents.

From a Suncorp survey:

Suncorp is a large banking and insurance company in Australia.

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### Zodiac Drivers From Worst to Best

1. Gemini (worst drivers)
2. Taurus
3. Pisces
4. Virgo
5. Cancer
6. Aquarius
7. Aries
8. Leo
9. Libra
10. Sagittarius
11. Scorpio
12. Capricorn (best drivers)



## Tests of Astrology

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COMMENTARY

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### A double-blind test of astrology

from Shawn Carlson

Two double-blind tests were made of the thesis that astrological 'natal charts' can be used to describe accurately personality traits of test subjects.

28 leading astrologers and about 120 subjects

- People pick their horoscope
- Astrologers pick subjects based on CPI (California Personality Inventory)

Conclusions: people could not pick their CPI; neither could the astrologers

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## Why astrology might appear to work

- Human communication is complicated. All forms of communication are incomplete.
- To communicate we have to be problem solvers and fill in the gaps. We internally try to make sense of statements directed toward us.
  - ◊ Some of your aspirations tend to be pretty unrealistic.
  - ◊ You have a strong need for other people to like you and for them to admire you.
- It is much easier to remember the correct interpretations rather than the incorrect ones.

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## What lessons should we take?

- Keep an open mind. There are likely many things about the Universe that we don't yet understand.
- Be skeptical. Whether you should leave your house of a given day is probably not written in the stars. It is up to you.
- Self reflection is not bad, but there are plenty of people who would like to make money on it.
- The use of the scientific method can help sort out valid from other approaches.
- "Extraordinary claims require extraordinary evidence."

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