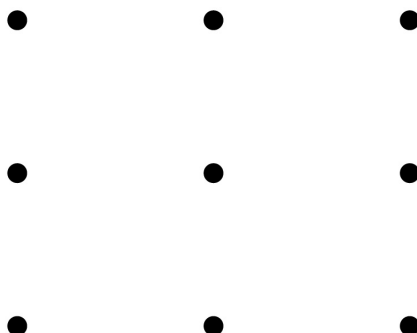


Introduction
(refer to course calendar links)

- a) *Connecting the dots with four straight lines without taking a pen or pencil from the surface and passing through each point only once.*



- b) *An arborist is asked to plan an orchard that has 10 trees arranged in 5 rows having 4 trees in each row.*

Provide a pattern that satisfies the plan.

- c) *Does the sun rise in the east, and does the earth rotate clockwise or counter-clockwise? Provide an explanation for your answer.*

- A) *Yes, Clockwise*
- B) *Yes, Counter-clockwise*
- C) *No, Clockwise*
- D) *No, Counter-clockwise*

d)

Write the following in scientific notation:

0.001520 seconds

15,200,000,000 seconds

Convert the number in scientific notation to a regular number:

7.6×10^6 seconds

7.6×10^{-4} seconds

e) *How does the age of the earth compare to a human's lifespan?*

1) *How would you compare the age of the earth to the age of Confucius (Master Kong, 孔夫子) born 551 BCE if he were alive today?*

2) *How would the age of mankind (200,000 years) compare to the age of all living things (??? Years)?*

3) *How would the age of industrialized mankind (200 years) compare to the age of mankind?*

f) *The earth is 4.54 billion years old and assume that our average lifespan will be 80 years. If the total age of the earth is represented by the face of a clock, how much time will 80 years be represented on the clock?*

A) 0.001520 seconds

B) 0.00076 seconds

C) 0.0008 seconds

D) 7,600,000 seconds

E) 15,200,000,000 seconds

g) *Which scale is the most practical to graphically represent the age of a 38,000 year old artifact vs. a 20 year old student on the same graph on the blackboard?*

A) 1 in = 1 yr

B) 1 in = 10 yr

C) 1 in = 100 yr

D) 1 in = 1,000 yr

E) 1 in = 10,000 yr

- | | |
|---|---------------------------|
| A. Age of the earth | _____ 85 years |
| B. Average lifespan of a woman in US | _____ 195,000,000 years |
| C. Extinction of BIG dinosaurs (Years ago) | _____ 58 years |
| D. Alchemy (Years ago) | _____ 13,700,000,000 yrs. |
| E. Average lifespan of a man in Russia | _____ 2500 yrs. |
| F. Ancient science (Years ago) | _____ 3,800,000,000 yrs. |
| G. Age of chemistry | _____ 400 yrs. |
| H. Dr. R's age | _____ 200-300 yrs. |
| I. Age of the universe | _____ 1000 yrs. |
| J. Extinction of LITTLE dinosaurs (Years ago) | _____ 4,540,000,000 yrs. |
| K. Age of Modern Science | _____ None of the choices |
| L. First life on earth | _____ 65,000,000 yrs. |