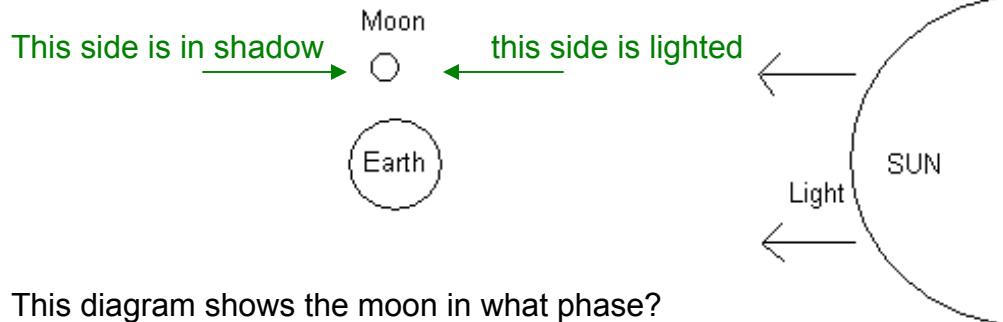


DO NOT WRITE ON THIS SHEET. USE THE SCANTRON FORM!

1.1 Color in the shadowed side of Moon.



This diagram shows the moon in what phase?

**First quarter** full third quarter new eclipse

1.2 With Moon in this position, it is (circle)

**Waxing** Waning at lunar eclipse at solar eclipse

1.3 What is the time (in days) from full Moon to a new Moon?

13  $\frac{2}{3}$  14 **14  $\frac{3}{4}$**  15 29  $\frac{1}{2}$

1.4 If the full moon is on the eastern horizon, what is the approximate time of day?

Sunrise Noon mid afternoon **Sunset** Midnight

1.5 When it is summer in Australia, what season is it in Oregon?

Spring summer fall **winter** depends what time of year it is

2.1 Compared to the outer planets, the inner planets are

**much closer to one another**

much further apart than the outer planets

larger cooler none of these choices

2.2 How many Earth years go by before one Venus year has passed?

0.53 **0.62** 224.7 1.63 1.88

2.3 From its density, you can surmise Mars is composed mostly of

**rock** ice gas

a combination of ice and rock a combination of ice and gas

2.4 Which planet has a day length closest to Earth?

Mercury Venus **Mars** Jupiter Saturn

2.5 Which planet has lowest surface pressure?

**Mercury** Venus Mars Jupiter Saturn

3.1 If you know velocity (speed) and distance, t=time can be calculated with the following equation.

t=vd      t=v/d      **t=d/v**      v=dt      v=t/d

3.2 If the speed of sound is 350 m/s, and there is a 10 second round-trip sound travel time, how far away is the object that the sound is reflecting from? (calculate, and show equation)

17.5 m      35 m      175 m      350 m      3500 m  
**OOPS 1750 m =**  $\frac{10s}{2} \times \frac{350m}{s}$

3.3 The wavelength of yellow light is about

750-640 nanometers      **6000-5600 angstroms**  
500-440 nanometers      4500-4000 angstroms  
400-360 nanometers

3.4 The speed of light is approximately

93,000,000 meters per second      150,000,000 kilometers per second  
3,000,000 meters per second      **300,000,000 meters per second**  
8.33 light years

3.5 Ultraviolet light is invisible because

it has wavelengths longer than visible light  
**it has wavelengths shorter than visible light**  
it is traveling faster than visible light  
it is traveling slower than visible light  
it has a lower frequency than visible light.

|     |                     |          |                               |
|-----|---------------------|----------|-------------------------------|
| 4.1 | asthenosphere       | <b>b</b> | a. destruction of lithosphere |
| 4.2 | convergent boundary | <b>d</b> | b. easily deformed            |
| 4.3 | divergent boundary  | <b>c</b> | c. shallow earthquakes        |
| 4.4 | lithosphere         | <b>e</b> | d. strongest earthquakes      |
| 4.5 | transform boundary  | <b>c</b> | e. upper mantle and crust     |

(It doesn't say "Matching" so not all responses are used...and one is used twice.)

4.6 What type of plate boundary affects the Pacific Northwest?

**a. Convergent mostly**      b. Divergent      c. Transform  
d. All of the above      e. Starbucks

4.7 Hawaii was created

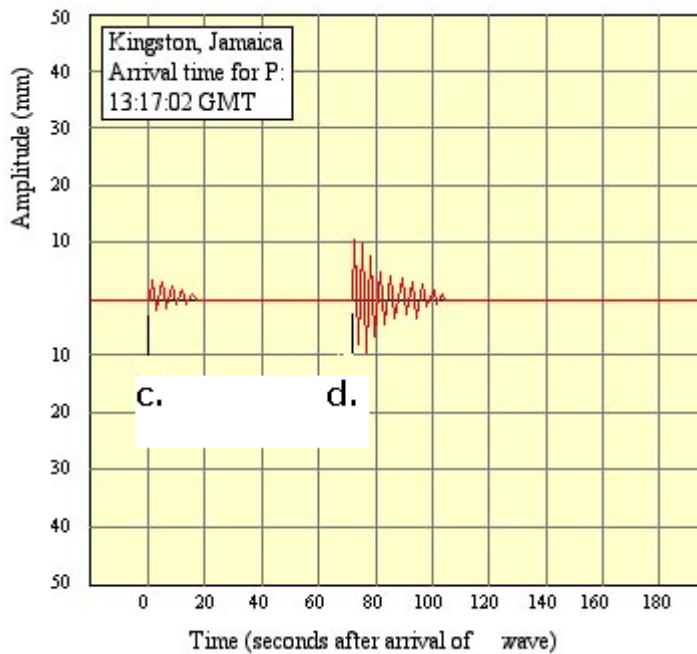
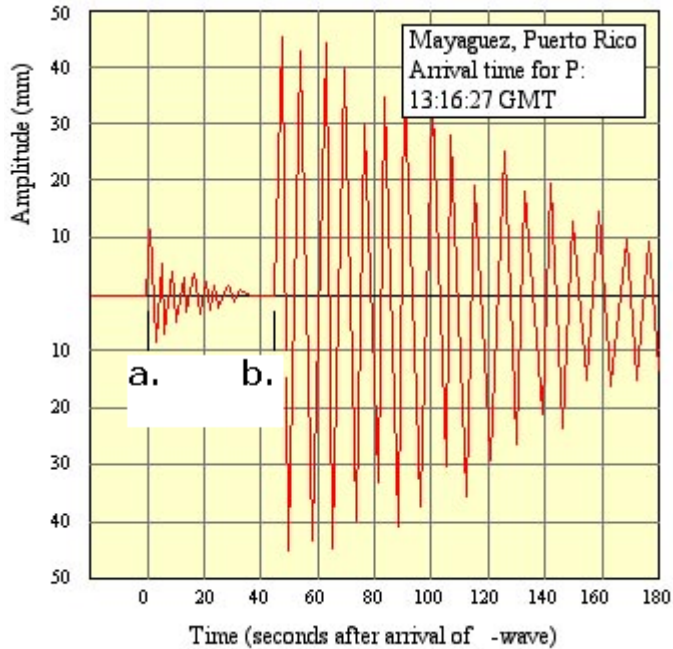
**a. By a mantle plume**      b. 65 million years ago      c. By Elvis Presley  
d. Before Midway Island      e. 758 miles from Suiko

4.8 What is the rate of movement shown by the rocks along the San Andreas Fault

**about 4.4 cm/yr ~ 1.7 in/yr so I will be sure to be accurate on real quiz**

- a. 25 million years
- b. 8 cm
- c. 3 inches
- d. About 1.5 cm/year
- e. About 4.2 inches per year

Use these seismograms and your time-travel curve for P-waves and S-waves (figures 2 and 3) on pages 5-4, 5-5 lab 5 to answer questions 5.1 to 5.4



<http://www.appstate.edu/~abbotr/e-quake/pt2-qk.html>

5.1 The P wave arrival at Kingston is: **c**  
choose letter in diagram or e. none of those

5.2 The S wave at Mayaguez is **b**  
choose letter in diagram or e. none of those

5.3 The time between P and S wave at Mayaguez is:

- a. 0 seconds
- b. 70 seconds
- c. 45 seconds**
- d. 110 seconds
- e. 2 minutes

5.4 The distance from the earthquake to Mayaguez is

- a. 20 miles
- b. 30 miles
- c. 200 miles
- d. 300 miles**
- e. 500 miles

Use maps of Lab 5 activities (on table) if they will be helpful for 5.5 and 5.6

5.5 The greatest liquefaction hazard exists

- a. Closer to the river**
- b. in West Salem
- c. On the top of Salem Heights
- d. At Fairview Hospital
- e. it is the same in all these places

5.6 What information would be useful in determining a location to build a home?

- a. Liquefaction potential
- b. Landslide susceptibility
- c. Type of bedrock
- d. All of these**
- e. None of these

See mineral sample A provided to answer questions 6.1 through 6.4

No key answers, since it depends on the sample. They will be available all day Monday, if you want to spend some time looking at them. You can work quietly in the back corner, and not disturb the ES 105 lab having their quiz, if you want.

6.1 The luster of this sample is

- a. Metallic—gray
- b. Metallic—yellow
- c. Glassy—light
- d. Glassy—dark
- e. Dull

6.2 If the mineral sample has a volume of  $200 \text{ cm}^3$  and a mass of 1500 grams, its density is

- a.  $0.33 \text{ cm}^3/\text{g}$
- b.  $0.133 \text{ g/cm}^3$
- c.  $7.5 \text{ cm}^3/\text{g}$
- d.  $7.5 \text{ g/cm}^3$
- e.  $1.33 \text{ g/cm}^3$

6.3 The mineral's cleavage is

- a. 1 direction, perfect
- b. 2 directions at  $60^\circ$
- c. 2 directions at  $90^\circ$
- d. 3 directions at  $60^\circ$
- e. 3 directions at  $90^\circ$

6.4 This mineral is

- a. Augite
- b. Plagioclase
- c. Galena
- d. Biotite
- e. Muscovite

6.5 What physical properties allow you to distinguish one feldspar from another?

- a. Angle between cleavage planes
- b. Color, if it is pink or gray
- c. Color, if it is white
- d. Striations on cleavage surface, if present
- e. Either b or d, if present

See sample R provided to answer question 7.1

No key answers, since it depends on the sample. They will be available all day Monday, if you want to spend some time looking at them. You can work quietly in the back corner, and not disturb the ES 105 lab having their quiz, if you want.

- 7.1 Which term best describes the texture of the rock sample?
- Fine-grained
  - Glassy
  - Coarse-grained
  - Porphyritic
  - Pegmatitic
- 7.2 What mineral would you expect to find in a gabbro?
- Quartz
  - Muscovite
  - Biotite
  - Potassium feldspar
  - Plagioclase feldspar
- 7.3 What is the name of a rock with 15 mm phenocrysts of potassium feldspar in a matrix of 2 mm crystals of quartz, potassium feldspar, plagioclase feldspar, and biotite?
- Porphyritic andesite
  - Basalt
  - Diorite
  - Porphyritic granite
  - Obsidian
- 7.4 The chemical composition of the rock described in question 20 (hee hee, I guess it's question 7.3) is
- ultramafic
  - Mafic
  - Intermediate
  - Felsic
  - There is not enough information to determine this.

- 8.1 Look at the topographic profile of Mt. Rainier. What type of volcano is it? **Quizzes may have different mountains**
- a. Cinder cone
  - b. Composite cone**
  - c. Shield volcano
  - d. Volcanic neck
  - e. Fissure eruption flood lava
- 8.2 If you find andesite lava flows, what would be the typical type of volcano it came from?
- a. Cinder cone
  - b. Composite cone**
  - c. Shield volcano
  - d. Volcanic neck
  - e. Fissure eruption flood lava
- 8.3 Comparing Mauna Loa to Mt. St Helens, which is most true
- a. Mauna Loa has more pyroclastic material than Mt. St Helens
  - b. Mauna Loa is higher than Mt. St Helens**
  - c. Mauna Loa steeper than Mt. St Helens
  - d. Mauna Loa has more debris avalanches than Mt. St Helens
  - e. None of the above can be determined
- 8.4 Lava viscosity determines
- a. The silica content
  - b. How explosive an eruption is**
  - c. How pale the lava is
  - d. Glassy texture
  - e. Phenocrysts
- 8.5 You would expect to find granite
- a. At the top of Mauna Loa
  - b. In the eroded remnants of Mauna Loa
  - c. At the top of Mt. St. Helens
  - d. In the eroded remnants of Mt. St. Helens**
  - e. In pyroclastic deposits from Mauna Loa