Vasquez High School -- Earth Science -- Exam #6 -- Chapters 25 & 26 -- 100 points
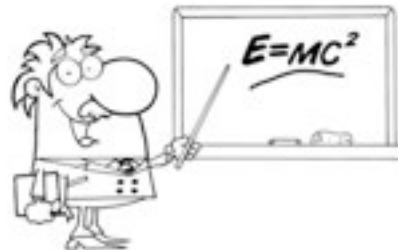
Write TRUE if the statement is true OR write the word that substitutes for the underlined word that would make it true. Writing false only earns partial credit. Three points each.

_____ 1) The area of partial shadow during an eclipse is called the <u>umbra</u>.

_____ 2) The <u>chromasphere</u> is the outermost layer of the sun.

_____ 3) <u>Over a million</u> earths will fit inside the sun.

_____ 4) The farther a planet is from the sun, the <u>faster</u> it travels.

_____ 5) We see lunar eclipses only occasionally, and not every month, because the moon's orbit is <u>28 days, not 30 or 31</u>.

_____ 6) The <u>surface</u> temperature of the sun is about 6,000 °C.

_____ 7) Light from the sun takes about <u>8 1/3 hours</u> to get to the Earth.

_____ 8) The most common feature of the Moon's surface are called <u>mascons</u>, and were caused by the impact of thousands of metreoroids over the years.

_____ 9) The spectral class of the sun is <u>G2</u>.

_____ 10) The Latin word for the Moon is <u>sol</u>.

<u>Matching section</u>. Write the letter that best matches each example. The same letter may be used more than once. Two points apiece.

_____ 11) The 3 Laws of Planetary Motion are his

_____ 12) Invented epicycles to explain retrograde motion

_____ 13) Supported the man who gave us the heliocentric theory to the church

_____ 14) Gave us the law of universal gravitation

_____ 15) Made thirty years of observations of the heavens

_____ 16) Polish astronomer who did away with the geocentric theory

_____ 17) Only Englishman in the group

_____ 18) Best student of he who had the wooden nose

_____ 19) Gave us E = mc^2

_____ 20) First man on the Moon

a) Isaac Newton
b) Nicholas Copernicus
c) Ptolemy
d) Albert Einstein
e) Abraham Lincoln
f) Tycho Brahe
g) Galileo Galilei
h) Johannes Kepler
i) Neil Armstrong
j) Billy Plasma

By the way, I wish to take back a mistake. The Moon does have some sizable mountains and mountain ranges.

Multiple Choice Section. Write the letter that best answers each example. Three points apiece.

_____ 21) Approximately how many earth diameters are equal to one sun diameter?

     a) 7   b) 100   c) 1,000   d) 1,000,000   e) 93,000,000

_____ 22) Which of these qualities does NOT apply to sunspots?

     a) They occur in eleven year cycles.
     b) They are darker than the regular surface.
     c) They emit extra large magnetic fields.
     d) They are hotter than the regular surface.
     e) All are qualities which apply to sunspots.

_____ 23) Which is true of maria on the Moon?

     I) They are the darker patches on the Moon's surface.
     II) They are evidence that water once existed on the Moon.
     III) They are evidence that the Moon once exhibited volcanic action.

     a) Only I is true.   d) Only I and II are true.
     b) Only II is true.   e) Only I and III are true.
     c) Only III is true.   f) All three are true.

_____ 24) The reason why only a small part of the planet gets to see a total solar eclipse each time one occurs is because

     a) the Earth's shadow only covers a small part of the Moon's surface.
     b) the Moon's shadow only covers a small part of the Sun's surface.
     c) the Moon's shadow only covers a small part of the Earth's surface.
     d) the Sun's shadow only covers a small part of the Earth's surface.

_____ 25) The outermost ayer of the sun's surface gives off a steady stream of electricaly charged particles called

     a) the solar wind   b) a solar flare   c) a solar prominence   d) none of these

Short Essay Section. Be neat (Alejandro!) and complete. READ what you write! Five points.

26) Explain in at least three sentences where the sun gets its energy. _____

_____

_____

_____

_____.

<u>Diagram Section</u>. Be clear and neat -- use a ruler if you want. Five points.

27) Make a drawing of a lunar eclipse. It must include all three bodies, two kinds of shadow and four light rays from the sun. Everything has to be labelled.

28) For ten points, draw all eight phases of the Moon as we see them from Earth, in their proper order, starting at New Moon, complete with all their names. Then label what phase is at 7, 14, and 21 days.

29) For five points, state the three laws of planetary motion:

a) _____

b) _____

c) _____

30) Two large bodies, having masses M and N are 10 meters apart. They have a gravitational force of F.

a) If I had two other bodies with masses of 7M and 3N, also 10 meters apart, what would be the gravitational force between them (express your answer in terms of F)?

b) If masses M and N were moved to a distance of 40 meters, what would the gravitational force between them be then (express your answer in terms of F)?

c) If masses M and N were both doubled, AND they were moved to a distance of 20 meters apart, what would the gravitational force between them be then (express your answer in terms of F)?