

NOVA: GALILEO'S BATTLE FOR THE HEAVENS

ANSWER QUESTIONS ON YOUR BUBBLE SHEET AND TURN IN ONLY THE BUBBLE SHEET.

1. ____ **When Galileo was born folks believed that the Sun**
 - a. Moved around the earth
 - b. Was the center of the universe (our solar system)
 - c. Never moved
 - d. Was circled (orbited) by the earth

2. ____ **Aristotle believed that**
 - a. the Sun was the center of the world
 - b. the earth was the center of the world
 - c. the folks that were astronomers were heretics
 - d. the earth was the bottom of the universe with a chain of creation reaching upward to Heaven
 - e. answers b and d apply

3. ____ **When (what year) did Galileo enter the University of Pisa in Italy and what did he ORIGINALLY study?**
 - a. 1581, studied to enter the priesthood
 - b. 1581, studied to be an astronomer
 - c. 1581, studied to be a doctor
 - d. 1581, studied to be a mathematician

4. ____ **Galileo switched majors at the University of Pisa and wound up studying what subject?**
 - a. studied to enter the priesthood
 - b. studied to be an astronomer
 - c. studied to be a doctor
 - d. studied to be a mathematician

5. ____ **Galileo gained a job (his first teaching job) as a professor of mathematics at what university?**
 - a. The University of Tennessee
 - b. The University of Pisa
 - c. The University of Padua
 - d. The University of Cambridge

6. ____ **How many children did Galileo have? (the answer to the question "did he have any kids?")**
 - a. one
 - b. two
 - c. three
 - d. four

7. ____ **Yep, just like Freeman told you, Galileo didn't invent the telescope... he just improved the design... in what year did this happen?**
 - a. 1581-1582
 - b. 1600-1601
 - c. 1609-1610
 - d. 1646-1647

8. ____ **The first commercial use (\$\$ making use) Galileo found for his newly designed telescope was**

- a. to observe the Heavens and begin debunking the teachings of the Church
 - b. as a spyglass for the Venetian Navy for use from bell towers
 - c. as a microscope to observe cells in cork-like material hence the term "cell"
9. ____ **When Galileo pointed his telescope at the planet Jupiter, what did he discover that challenged the teachings of the Church?**
- a. Four little moons
 - b. Four little moons that orbited Jupiter
 - c. Four little moons that orbited Jupiter and NOT the earth
 - d. Four little moons that orbited Jupiter and NOT the earth and the first new astronomical bodies discovered since ancient times
 - e. All answers apply
 - f. None of these answers apply
10. ____ **The astronomer Ptolemy created an imaginary set of intricate nested celestial spheres that accounted for all the motions of the sun, the moon and the planets... what was at the center of these nested spheres?**
- a. The Sun
 - b. The moon
 - c. The earth
 - d. The Vatican
11. ____ **Who was the astronomer that first suggested that the sun was the center of the world?**
- a. Galileo
 - b. Ptolemy
 - c. Copernicus
 - d. Newton
12. ____ **Galileo wanted freedom from his teaching duties... he sought to be "mathematician and philosopher" in Florence, Italy to the Medici family... what did he do with his daughters in order to make this move?**
- a. Placed them with his mistress and young son and left them in Padua
 - b. Placed them in the Convent of San Mateo in Arcetri outside of Florence
 - c. Married them off into a wealthy family with a substantial dowry
13. ____ **Galileo began his research under the funding of the Medici family and realized that the Sun was indeed the center of the universe (our solar system)... and sought PROOF for this so he would not be ridiculed (made fun of) for this belief... where did he find this proof?**
- a. In the phases of the moon
 - b. In the phases of Venus
 - c. In the phases of funding rituals from the Medici family
14. ____ **What was Galileo's opinion of why the Bible and his science didn't always agree?**
- a. The science was right and the Bible was wrong
 - b. The Bible was right and the science was wrong
 - c. Both were right but people's INTERPRETATIONS of the Bible were flawed
 - d. Galileo believed that he was a heretic and should be investigated by the Holy Inquisition
15. ____ **In what year did Galileo journey to Rome under the protection of the Medici family to go "head to head" with the Church hierarchy (and hopefully Cardinal Bellarmine) to try to convince them of the correctness of the Copernican Theory?**
- a. 1574

- b. 1581
- c. 1610
- d. 1616

16. ____ **The Holy Inquisition voted 11 to nothing that the notion that “the earth moved was foolish and absurd” and that “the belief that the sun was the center of the world was a matter of formal heresy”... Cardinal Bellarmine told Galileo not to defend the Copernican System or “be silenced”... what did Galileo do?**
- a. Told the Church to go away and shut up
 - b. Ceased to argue in defense of Copernicus and remained silent
 - c. Said that his work saying that the Sun was the center of the world was simply a dream and nothing more
 - d. Both b and c apply
17. ____ **In a desperate effort to cease upon Cardinal Bellarmine’s only loophole, Galileo begins to study what (in error)?**
- a. The motions of the moon
 - b. The motions of the tides
 - c. The motions of balls dropped from moving horses
18. ____ **Galileo found proof that it was possible that the earth was moving and we didn’t notice this movement... what did Galileo study to come up with this proof (said to be the first great thought experiment in physics)?**
- a. The motions of the moon
 - b. The motions of the tides
 - c. The motions of balls dropped from moving horses
19. ____ **After being forced to renounce his belief and support of the Copernican System, Galileo still used his telescope to find proof that the teachings of the Church were flawed... the Church taught that all celestial bodies were “unchanging and pristine”... Galileo used his telescope to discover changes in an important celestial body... the Sun... what did Galileo discover?**
- a. Prominences
 - b. Solar flares
 - c. Sunspots
 - d. Suntans
20. ____ **Galileo gets a break when a new Pope is installed... who is this Pope?**
- a. Pope John Paul II
 - b. Pope Urban VIII
 - c. Pope Henry VIII
 - d. Pope Edward II
21. ____ **Galileo begins to write a book in the form of a dialogue... when was this book finished?**
- a. December 1629
 - b. June 1610
 - c. December 1581
 - d. June 1574
22. ____ **Shortly after the publication of Galileo’s book (around 1632), the Plague hit Florence, Italy... what were some precautions taken against the plague?**
- a. Quarantine of homes and businesses
 - b. Doctors prowling the streets in masks stuffed with straw as a crude “filtering device”
 - c. The collection of the dead by cartloads at night

- d. Religious processions through the streets
- e. Praying by the nuns of San Mateo 2 at a time for 40 days around the clock
- f. All of the above answers apply
- g. None of the above answers apply

23. ____ **The Holy Inquisition tried Galileo for the publication of his book (which supported Copernicus against the strict orders of Cardinal Bellarmine of some 16 years earlier) when Galileo was what age?**
- a. 50
 - b. 60
 - c. 70
 - d. 80
24. ____ **When Galileo returned home to "house arrest" after his trial, he was unable to do what?**
- a. see his near-by daughter without permission
 - b. teach
 - c. travel away from home
 - d. all of these
25. ____ **When was Galileo finally pardoned by the Church? (The Pope agreed with Galileo's response to question number 14)**
- a. 1685
 - b. 1799
 - c. 1865
 - d. 1992
 - e. 2001