

Name: _____

Intro Astro Lab Quiz: Lab 5: Planets

Instructions: There are 10 multiple-choice problems each worth 1 marks for a total of 10 marks altogether. Choose the **BEST** answer, completion, etc., and **DARKEN** fully the appropriate circle on the table provided below. Read all responses carefully. **NOTE** long detailed responses won't depend on hidden keywords: keywords in such responses are bold-faced capitalized.

This is a 10 minute quiz.

Answer Table for the Multiple-Choice Questions

	a	b	c	d	e		a	b	c	d	e
1.	O	O	O	O	O	6.	O	O	O	O	O
2.	O	O	O	O	O	7.	O	O	O	O	O
3.	O	O	O	O	O	8.	O	O	O	O	O
4.	O	O	O	O	O	9.	O	O	O	O	O
5.	O	O	O	O	O	10.	O	O	O	O	O

005 qmult 00100 1 1 3 easy memory: geocentric solar system

1. Before circa 1500, everyone in the context of ancient-Greek-derived astronomy (i.e., in European and the Mideastern astronomy) and perhaps nearly everywhere else believed that the Solar System was:

a) heliocentric. b) Venusocentric. c) geocentric. d) Martiocentric. e) egocentric.

SUGGESTED ANSWER: (c)

Wrong answers:

a) Exactly wrong.

Redaction: Jeffery, 2013jan01

005 qmult 00120 1 4 5 easy deducto-memory: epicycle defined

2. "Let's play *Jeopardy!* For \$100, the answer is: It is a circular planetary orbit that orbits on a larger circular orbit that is called the deferent. The center of this circular planetary orbit is just an empty point in space."

What is a _____, Alex?

a) bicycle b) carbon cycle c) ring world d) torus e) epicycle

SUGGESTED ANSWER: (e)

Wrong answers:

c) Larry Niven's creation.

Redaction: Jeffery, 2013jan01

005 qmult 00130 1 4 5 easy deducto-memory: Ptolemy

3. "Let's play *Jeopardy!* For \$100, the answer is: He created a complete epicycle model for the Solar System which continued to be used for astronomical prediction and was somewhat believed in for 13 centuries."

Who is _____, Alex?

a) Aristotle (384–322 BCE) b) Berossos, priest of Bel Marduk (3rd century BCE)
 c) King Ptolemy I (c. 367–c. 283 BCE) d) Cleopatra (69–30 BCE)
 e) Ptolemy (circa 100–175 CE)

SUGGESTED ANSWER: (e)

Wrong answers:

- b) Berossos of Babylon (3rd century BCE) moved to the Greek island of Kos and founded a school astronomy/astrology (No-38–39).
- c) The Macedonian dynasty of Egypt had many King Ptolemys but none were astronomers to my knowledge.
- d) The gender should be the give away. Actually Cleopatra in after-legend was credited with arcane wisdom and is the apocryphal author of a work on alchemy I believe.
- a) As Lurch would say AAAARGH.

Redaction: Jeffery, 2013jan01

005 qmult 00160 1 1 1 easy memory: wrongness of epicycle models

4. The epicycle theory has two major deficiencies. It is _____ and it gives _____ of the solar system.
- a) wrong; no uniquely good model
 - b) right; a uniquely good model
 - c) right; no uniquely good model
 - d) wrong; a uniquely good model
 - e) right; two uniquely good models

SUGGESTED ANSWER: (a)

Wrong answers:

- b) Exactly wrong.

Redaction: Jeffery, 2013jan01

005 qmult 00210 1 1 4 easy memory: time interval between Ptolemy and Copernicus

5. The time interval from Ptolemy to Copernicus is about _____ years.
- a) negative 400
 - b) 250
 - c) 1200
 - d) 1400
 - e) 2000

SUGGESTED ANSWER: (d)

Wrong answers:

- a) The interval to Aristarchos of Samos (c. 310–c. 230 BCE).
- b) The interval to Hypatia.
- c) The interval to Ibn al-Shatir.
- e) The interval to Mr. Spock?

Redaction: Jeffery, 2013jan01

005 qmult 00220 1 1 2 easy memory: impossible moving Earth

6. Copernicus' contemporaries rejected heliocentrism mainly because they could not believe in a/an:
- a) unmoving Earth.
 - b) moving Earth.
 - c) moving Moon.
 - d) unmoving Moon.
 - e) moving Mars.

SUGGESTED ANSWER: (b)

Wrong answers:

- a) Exactly wrong.

Redaction: Jeffery, 2013jan01

005 qmult 00230 1 1 3 easy memory: solar system distances predicted in AU

7. The heliocentric theory allowed Copernicus to predict the locations of all the planets in units of the:
- a) meter.
 - b) kilometer.
 - c) astronomical unit.
 - d) mile.
 - e) light-year.

SUGGESTED ANSWER: (c)

Wrong answers:

- e) Oh, c'mon.

Redaction: Jeffery, 2013jan01

005 qmult 00320 1 1 4 easy memory: conjunction and opposition defined

8. When two astro-bodies are aligned on the sky, they are in _____ and when they are 180° apart on the sky, they are in _____.
- a) conjunction; antiparallel b) construction; opposition c) conduction; opposition
 d) conjunction; opposition e) parallel; antiparallel

SUGGESTED ANSWER: (d)

Wrong answers:

- e) Sounds reasonable for the lines from the Earth to the astro-bodies.

Redaction: Jeffery, 2008jan01

005 qmult 00324 1 1 1 easy memory: superior planet never in inferior conjunction

9. A superior planet—a lordly, proud planet—is in inferior conjunction:
- a) never. b) always when in conjunction. c) when in opposition.
 d) when in quadrature. e) when in syzygy.

SUGGESTED ANSWER: (a) A superior planet can never be between the Earth and the Sun.

Wrong answers:

- b) A superior planet only has superior conjunctions.

Redaction: Jeffery, 2013jan01

005 qmult 00360 1 1 3 easy memory: eastern/western quadrature

10. Eastern/western quadrature occurs when a superior planet is _____ the Sun.
- a) as far west/east as it can be on a given orbit from b) as far east/west as it can be on a given orbit from c) at 90° east/west from d) at 90° west/east from e) in opposition to/conjunction with

SUGGESTED ANSWER: (c)

Wrong answers:

- c) Only a superior planet can be at 90° from the Sun.

Redaction: Jeffery, 2013jan01