Jeopardy

Astronomy Test Review

Astronomy 1	Astronomy 2	Astronomy 3	Astronomy 4	Astronomy 5
10	10	10	10	10
20	20	20	20	20
30	30	30	30	30
40	40	40	40	40
50	50	50	50	50

Astronomy 1 - 10

- Which of the following best describes our solar system?
  a. Earth is at the center of the universe.
  b. Earth is at the center of a system of planets and stars.
  c. The sun is at the center with planets orbiting in perfect circles.
  d. The sun is at the center with planets moving in elliptical orbits.

Astronomy Answer 1 – 10

- A - Earth is at the center of the universe.

Astronomy 1 - 20

- The phases of the moon you see depends on
  a. where you are on Earth's surface
  b. how much of the moon's surface is lit by the sun
  c. how much of the sunlit side of the moon faces Earth
  d. how much of the dark side of the moon's surface is lit by the sun

Astronomy Answer 1 – 20

- C - how much of the sunlit side of the moon faces Earth

Astronomy 1 - 30

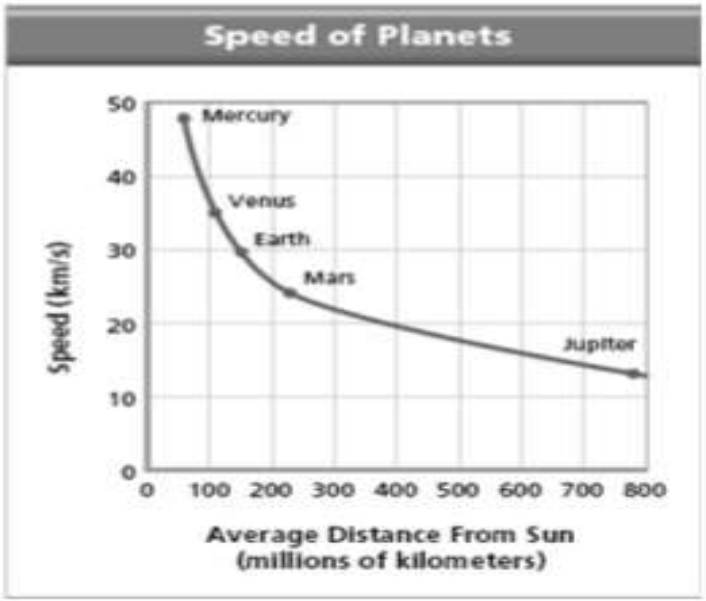
- Day and night are caused by
  a. the tilt of the Earth's axis
  b. Earth's rotation on its axis
  c. Earth's revolution around the sun
  d. Earth's revolution around the moon

Astronomy Answer 1 – 30

- B - Earth’s rotation on its axis

Astronomy 1 - 40

The graph shows Johannes Kepler's discovery. Kepler discovered a relationship between the speed of a planet's revolution and its distance from the sun.



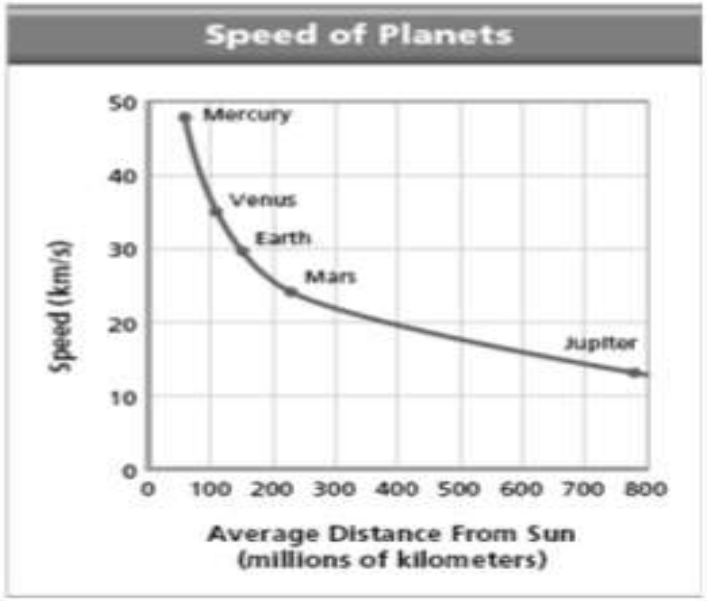
- What is the general relationship between a planet's speed and its average distance from the sun?
  a. Planets closer to the sun revolve faster.
  b. Planets farther from the sun revolve faster.
  c. Planets beyond Jupiter revolve at a much faster rate.
  d. Planets beyond Jupiter do not revolve around the sun.

Astronomy Answer 1 – 40

- A - Planets closer to the sun revolve faster.

Astronomy 1 - 50

The graph shows Johannes Kepler's discovery. Kepler discovered a relationship between the speed of a planet's revolution and its distance from the sun.



- Which of the planets shown above would have the most elliptical orbit?

a. Mercury
b. Venus
c. Earth
d. Mars

Astronomy Answer 1 – 50

- A - Mercury

Astronomy 2 - 10

- When are tides highest?
  a. during the moon's first quarter phase
  b. during the moon's third quarter phase
  c. when the moon is at a right angle to the sun
  d. when the sun, Earth and the moon are nearly in a line

Astronomy Answer 2 – 10

- D - when the sun, Earth and the moon are nearly in a line

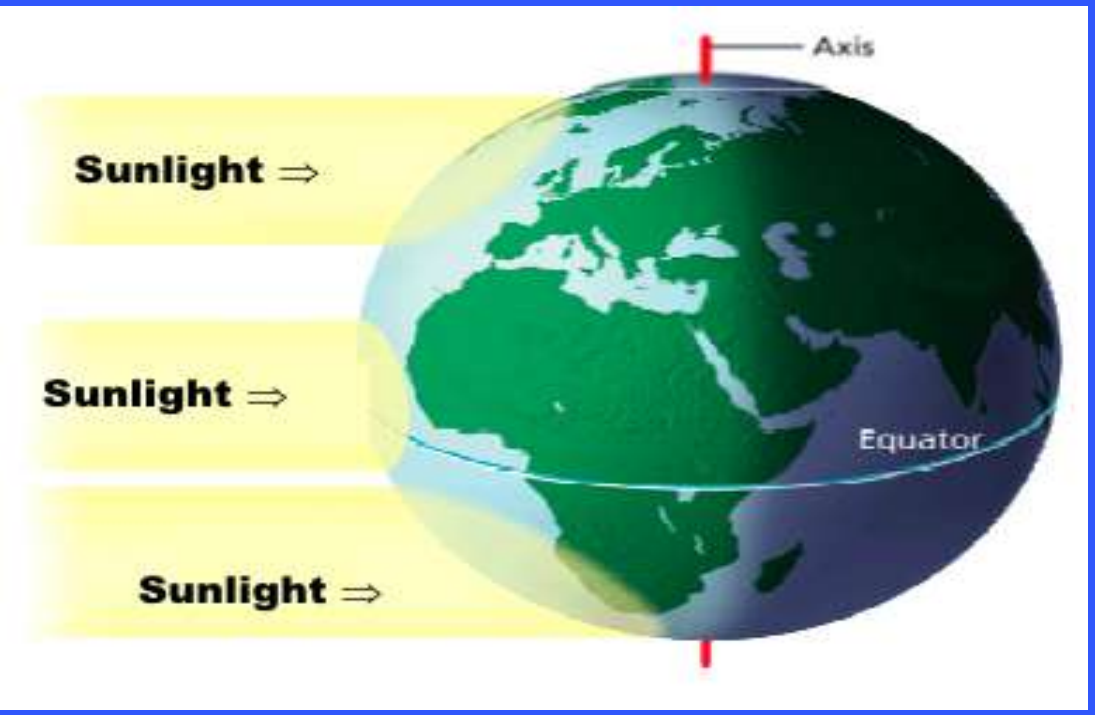
Astronomy 2 - 20

- The two factors that combine to keep Earth and the moon in their orbits are
  a. mass and inertia
  b. gravity and inertia
  c. orbital speed and mass
  d. gravity and orbital speed

Astronomy Answer 2 – 20

- B - gravity and inertia

Astronomy 2 - 30



- On which of these days, is the Southern Hemisphere experiencing winter weather?

a. January 19 b. April 19

c. July 19 d. October 19

Astronomy Answer 2 – 30

- C – July 19

Astronomy 2 - 40

- Our solar system is located in the Milky Way Galaxy, which is
  a. one of four galaxies
  b. the only existing galaxy
  c. one of billions of galaxies
  d. one of hundreds of galaxies

Astronomy Answer 2 – 40

- C – one of billions of galaxies

Astronomy 2 - 50

- A total solar eclipse is visible from
  a. all over Earth
  b. only the dark side of Earth
  c. only within the moon’s umbra
  d. only within the moon’s penumbra

Astronomy Answer 2 – 50

- C - only within the moon’s umbra

Astronomy 3 - 10

- Tides are mainly caused by
  a. strong winds blowing water onto coasts
  b. Earth's rotation on its axis, which causes water to move
  c. differences in how much the sun pulls on different parts of Earth
  d. differences in how much the moon pulls on different parts of Earth

Astronomy Answer 3 – 10

- D - differences in how much the moon pulls on different parts of Earth

Astronomy 3 - 20

Planetary Motion (1.0 unit = 1 Earth Day/Year)		
Planet	Period of Rotation	Period of Revolution
Earth	1.0	1.0
Jupiter	0.41	12.0
Mars	1.03	1.9
Mercury	59.0	0.24
Uranus	0.72	84.0

- Which planet has the longest solar year?

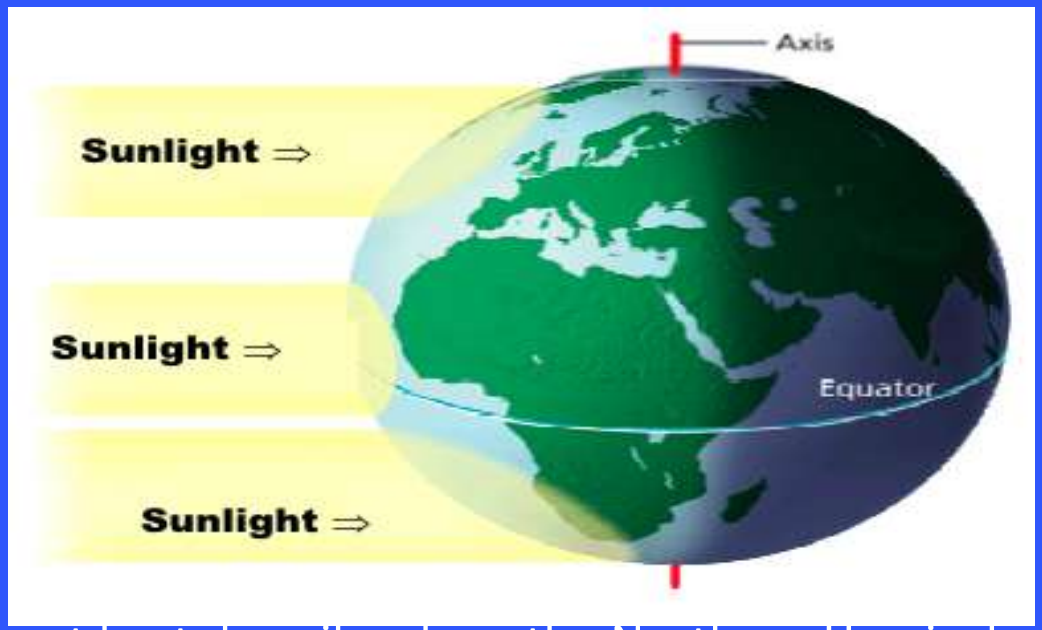
  a. Mars b. Jupiter

  c. Uranus d. Mercury

Astronomy Answer 3 – 20

- C - Uranus

Astronomy 3 - 30



- Which statement best describes how the Northern Hemisphere will be affected when it is tilted away from the sun?
  a. The amount of sunlight will not change.
  b. There will be an increase in the amount of sunlight received.
  c. The average daily temperature of the Northern Hemisphere will increase.
  d. The average daily temperature of the Northern Hemisphere will decrease.

Astronomy Answer 3 – 30

- D - The average daily temperature of the Northern Hemisphere will decrease.

Astronomy 3 - 40

- For a lunar eclipse to occur the
  a. moon must be directly behind Earth
  b. sun must be directly between Earth and the moon
  c. Earth must be directly between the sun and the moon
  d. moon must be directly between the Earth and the sun

Astronomy Answer 3 – 40

- C - Earth must be directly between the sun and the moon

Astronomy 3 - 50

- Saturn is closer to the sun than Uranus. Which statement best describes its revolution?
  a. The period of revolution of Saturn is less than that of Uranus.
  b. The period of revolution of Saturn is more than that of Uranus.
  c. There is no relationship between the distance from the sun and revolution.
  d. Saturn's revolution is about the same as Uranus because Saturn is a larger planet.

Astronomy Answer 3 – 50

- A - The period of revolution of Saturn is less than that of Uranus.

Astronomy 4 - 10

Fraction of the Moon Illuminated at Midnight

Day	January	February
1	.19	.31
2	.27	.42
3	.37	.53
4	.47	.64
5	.58	.75
6	.68	.84
7	.79	.92
8	.87	.97
9	.94	1.00
10	.99	.99
11	1.00	.97
12	.98	.91
13	.94	.84
14	.87	.76
15	.79	.66
16	.69	.57
17	.59	.47
18	.49	.38
19	.39	.29
20	.30	.21
21	.22	.14
22	.15	.08
23	.09	.03
24	.04	.01
25	.01	.00
26	.00	.01
27	.01	.05
28	.03	.11

- Which date shows a new moon?

a. February 1

b. February 9

c. February 17

d. February 25

Astronomy Answer 4 – 10

- D – February 25

Astronomy 4 - 20

- State Newton's Law of Universal Gravitation in words.

Astronomy Answer 4 – 20

- Every object in the universe attracts every other object

Astronomy 4 - 30

- The strength of the force of gravity depends on the
  a. weight of the objects and their speeds
  b. masses of the objects and their speeds
  c. masses of the objects and their weights
  d. masses of the objects and the distance between them

Astronomy Answer 4 – 30

- D - masses of the objects and the distance between them

Astronomy 4 - 40

- What is the primary cause of tides?

Astronomy Answer 4 – 40

- Tides are mainly caused by the differences in how much the moon's gravity pulls on different parts of Earth.

Astronomy 4 - 50

Fraction of the Moon Illuminated at Midnight

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18	.49	.38
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24	.04	.01
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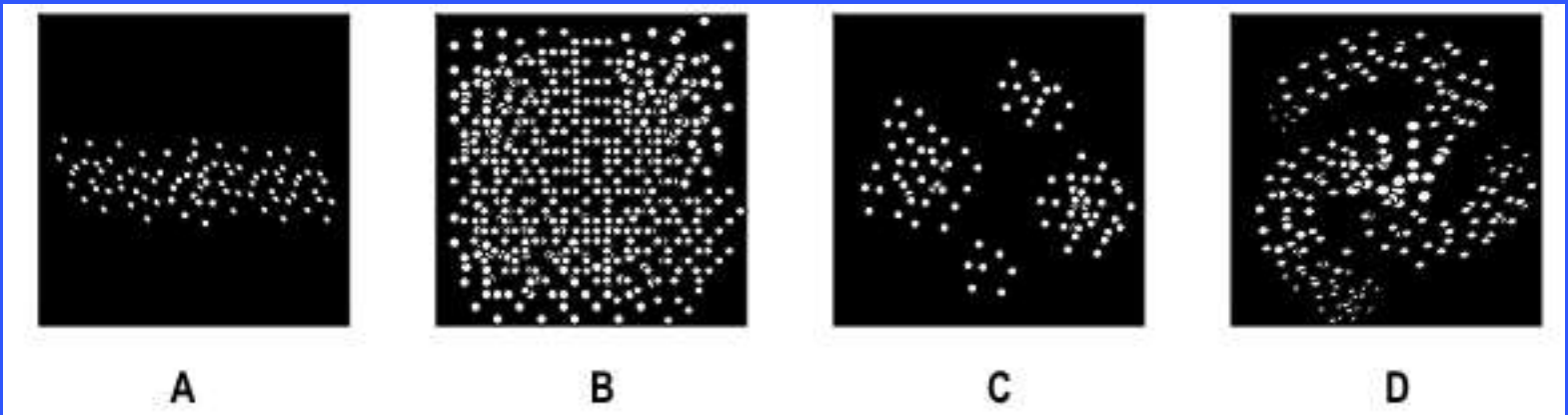
- Which of the following phases would you expect to see between February 1 and February 9?
  a. first quarter and waxing gibbous
  b. first quarter and waning gibbous
  c. third quarter and waxing gibbous
  d. third quarter and waning gibbous

Astronomy Answer 4 – 50

- A - first quarter and waxing gibbous

Astronomy 5 - 10



- The diagrams above show various models of galaxies from a top view. Our solar system exists in a galaxy called the Milky Way. Which picture best represents the shape of our galaxy?
  a. A (an extended line of stars and planets)
  b. B (a random arrangement of stars and planets)
  c. C (a random arrangement of star clusters and planets)
  d. D (a disc-shaped cluster of stars and planets with arms)

Astronomy Answer 5 – 10

- D - D (a disc-shaped cluster of stars and planets with arms)

Astronomy 5 - 20

- The Earth completes a rotation in
  a. 12 hours
  b. 24 hours
  c. 30 days
  d. 365 days

Astronomy Answer 5 – 20

- B – 24 hours

Astronomy 5 - 30

- The Milky Way is a/an _____ galaxy
  a. Spiral
  b. Elliptical
  c. Irregular
  d. Globular

Astronomy Answer 5 – 30

- A - Spiral

Astronomy 5 - 40

Planetary Motion (1.0 unit = 1 Earth Day/Year)		
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Earth	1.0	1.0
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Mars	1.03	1.9
Mercury	59.0	0.24
Uranus	0.72	84.0

- Which planet has the longest day?

  a. Mars b. Jupiter

  c. Uranus d. Mercury

Astronomy Answer 5 – 40

- D - Mercury

Astronomy 5 - 50

- What does the phase of the moon you see depend on?

Astronomy Answer 5 – 50

- The phase of the moon you see depends on how much of the sunlit side of the moon faces Earth.

Final Jeopardy!

Fraction of the Moon Illuminated at Midnight

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You may wager ANY amount of points!

Looking at the chart on the left, between the dates of January 12 and January 24, what are the phases of the moon you will see?

Final Jeopardy!

- You would see a third quarter moon AND a waning gibbous