

Solar System  
Shakedown Questions and Answers

- 1) What planet is about the same size as Earth?  
Answer: Venus
- 2) Which planet is the biggest?  
Answer: Jupiter
- 3) What is the hottest planet in the solar system?  
Answer: Venus
- 4) What is light pollution?  
Answer: Bad outdoor lighting that causes a glow above a city, interferes with viewing the night sky, and disrupts the environment.
- 5) Which two planets are closest to Earth?  
Answer: Venus and Mars
- 6) What is the coldest planet in the solar system?  
Answer: Pluto
- 7) What is the closest star to Earth?  
Answer: The sun
- 8) Which planets are made of gas?  
Answer: Jupiter, Saturn, Uranus, Neptune
- 9) Which of the following is not affected by light pollution?
  - a) Birds
  - b) Insects
  - c) Amphibians
  - d) Reptiles
  - e) Humans
  - f) None of the above. All are affected.Answer: F
- 10) Which planet has the biggest known storm and how many times can Earth fit inside it?  
Answer: Jupiter's storm can fit 2-3 Earth's inside of it.
- 11) Which planet has a longer day than its year, and how is this possible?  
Answer: Venus. It takes longer for Venus to rotate once than it does for it to orbit all the way around the sun.
- 12) How many moons does Mars have?  
Answer: Two, Phobos and Deimos
- 13) What is the first planet to be discovered mathematically rather than by observation?  
Answer: Neptune
- 14) Which planet rotates on its side?  
Answer: Uranus

15) Which one causes light pollution?

- a) Fully-shielded lighting
- b) Excessive outdoor night lighting
- c) Motion sensors on security lights
- d) Turning off lights when not in use

Answer: B

16) What is Valles Marinaris and how big is it?

Answer: Valles Marinaris is the largest canyon in the solar system. It's on Mars and is about 3,000 miles long.

17) Light pollution negatively affects astronomy. How?

- a) It keeps everyone from seeing the stars at night.
- b) It's hard to study the universe in telescopes.
- c) It makes it more expensive to study deep space.
- d) All of the above.

Answer: D

18) How many times have humans been to the moon?

Answer: 6

19) What does 'no atmosphere' on Mercury mean?

Answer: No wind, no rain, and no erosion to change the shape of the land.

20) Name two things that are unique to Pluto's orbit.

Answer: Pluto's orbit is very oval shaped, it orbits with Kuiper belt objects, its orbit is sometimes closer to the sun than Neptune. Its orbit is not in the same disk as the rest of the planets.

21) How do plate tectonics affect the surface of Earth?

Answer: It causes mountains, volcanoes, tidal waves, Earthquakes, and sea trenches, all which change the way the surface of the Earth looks over time.

22) What is a shooting star?

Answer: A meteor falling to Earth.

23) What is the Kuiper belt?

Answer: An expanse of thousands of small objects orbiting the sun outside the orbit of Neptune.

24) Name two things you can do to protect the world from light pollution.

Answer: Use motion sensors, use timers, turn out lights when not in use, use fully-shielded lights, use energy efficient lights, make sure lights aren't too bright.

25) Name all of the components of the solar system in order including stars, planets, asteroid belts, and clouds.

Answer: Sun, Mercury Venus, Earth, Mars, Asteroid belt, Jupiter, Saturn, Uranus, Neptune, Kuiper Belt, Pluto, Oort Cloud