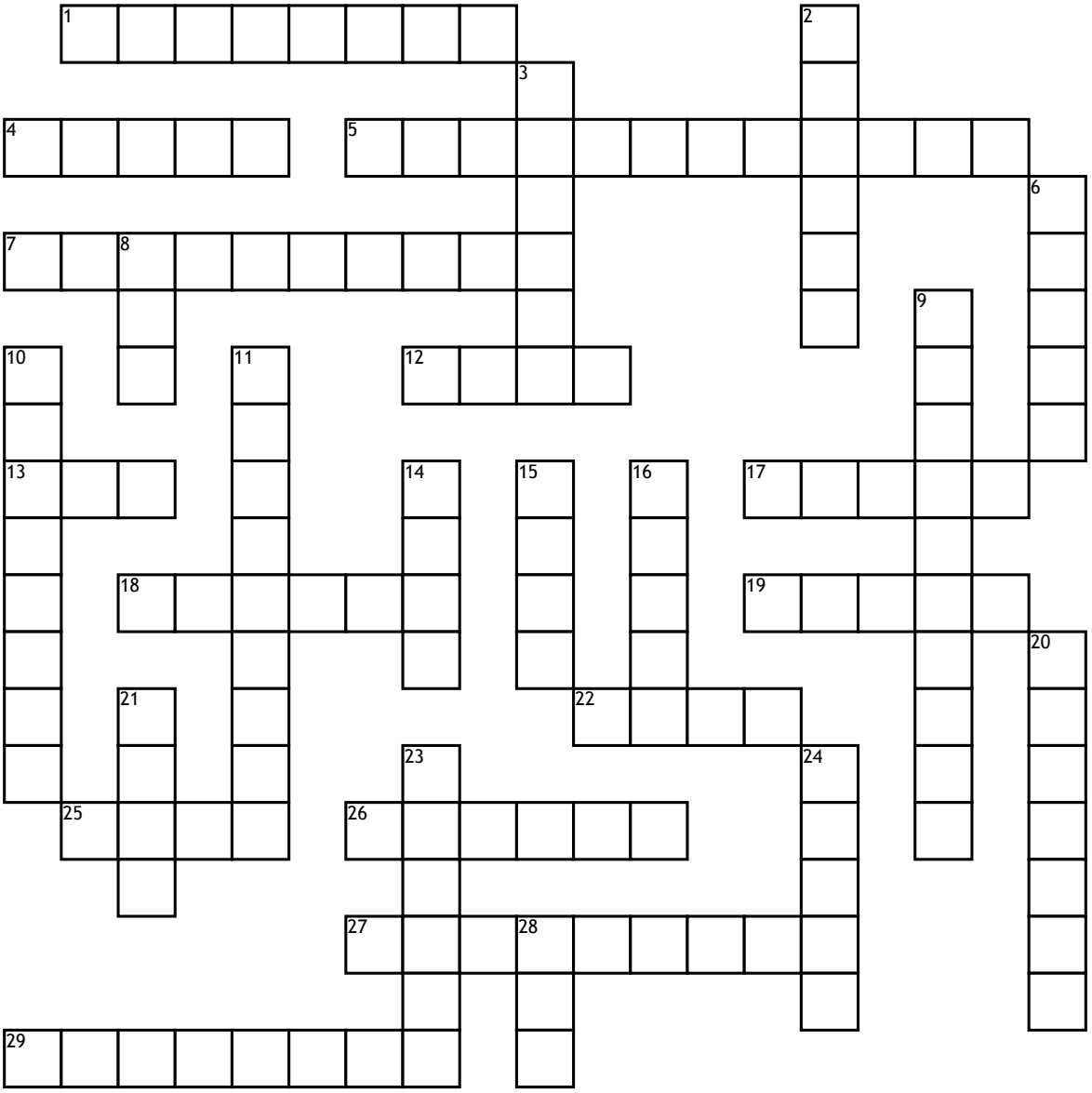
Name: _____ Date: _____

Kepler's Laws



Across

1. The point at which an orbiting body is farthest from the sun.

4. Which of Kepler's laws states that the orbital period of an object can be related to its distance from the sun?

5. A measure of how circular an orbit path is

7. All objects orbit the sun in _____ shapes

12. The eccentricity of a circle

13. What object is always one of the two foci in the solar system?

17. The path an object takes as it travels around the sun.

18. A low eccentricity indicates this shape of orbit.

19. An object that orbits the sun that is made of rock and ice and looks like it has a tail when it gets close to the sun.

22. The two points around which an ellipse is made.

25. The more _____ an object has, the more gravity it has.

26. The scientist who came up with the law of gravitation

27. The shortest distance across the orbit of an object.

29. A rocky object that orbits the sun outside mars' orbit.

Down

2. Which of Kepler's laws proves that objects move faster as they get closer to the sun?

3. The scientist we are studying

6. When objects are closer together they have a greater _____ of gravity between them.

8. Planets all have orbits with _____ eccentricities.

9. The point at which an orbiting body is closest to the sun.

10. When the _____ between two planets increases the force of gravity decreases

11. A line across the orbital path of an object from perihelion to aphelion.

14. Kepler's second law states that the _____ swept out by the orbit of a planet is the same for each same period of time

15. Orbits of comets have _____ eccentricity.

16. _____ is not a planet because its orbit is too eccentric

20. The force that causes planets to orbit

21. A high eccentricity indicates this shape of orbit.

23. The time it takes for an object to orbit the sun.

24. Which of Kepler's laws states that nothing orbits the sun in a perfect circle?

28. The eccentricity of a line