Name _____

Gravity Quiz: Test Your Pull!

Instructions: Read each question carefully and select the letter of the correct answer. Circle the best choice.

1. Who first described the law of universal gravitation in the 1600s?
   A. Galileo Galilei
   B. Albert Einstein
   C. Isaac Newton
   D. Johannes Kepler

2. What happens to the gravitational force between two objects if the distance between them doubles?
   A. It doubles
   B. It becomes four times stronger
   C. It becomes half as strong
   D. It becomes four times weaker

3. On the Moon, astronauts weigh less than on Earth because:
   A. The Moon's gravity is weaker due to its smaller mass
   B. The Moon has no atmosphere
   C. The Moon is farther from the Sun
   D. The Moon rotates slower than Earth

4. Which of the following is NOT a direct effect of gravity?
   A. Ocean tides
   B. Satellites staying in orbit
   C. Light bending near a black hole
   D. A rainbow forming after rain

5. What keeps the planets in our Solar System moving in elliptical orbits around the Sun?
   A. The Sun's gravity
   B. Earth's rotation
   C. The Moon's gravitational pull
   D. The planets' own gravity

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6. If Earth's mass suddenly doubled but its size stayed the same, your weight would:
   A. Stay the same
   B. Double
   C. Be cut in half
   D. Increase by four times

7. Microgravity experienced in the International Space Station happens because:
   A. There is no gravity in space
   B. The ISS is far from Earth's gravitational pull
   C. The ISS is in constant free fall around Earth
   D. Astronauts turn off gravity generators

8. Which factor does NOT affect the strength of gravity between two objects?
   A. The mass of the objects
   B. The distance between the objects
   C. The shape of the objects
   D. The gravitational constant (G)

Bonus Question:
Which force is responsible for the Moon staying in orbit around Earth?
A. Magnetism
B. Friction
C. Gravity
D. Solar wind