

Name \_\_\_\_\_

## Cosmic Collisions: Can Black Holes Merge Together?

### Multiple Choice Questions

1. What happens when two black holes merge?
  - A) They explode, creating new stars.
  - B) They form a single, larger black hole.
  - C) They transform into neutron stars.
  - D) They remain separate entities.
  
2. How do black hole mergers emit information about their collision?
  - A) Through visible light emissions.
  - B) By releasing gamma-ray bursts.
  - C) By emitting gravitational waves.
  - D) Through the formation of new stars.
  
3. What is a binary system of black holes?
  - A) A system of two black holes far apart from each other.
  - B) A system of two black holes in close proximity.
  - C) A system of black holes and neutron stars.
  - D) A system of black holes and white dwarfs.
  
4. What is the final result of a black hole merger?
  - A) Two smaller black holes.
  - B) A single, larger black hole.
  - C) The formation of a neutron star.
  - D) A burst of visible light.
  
5. What do scientists learn from detecting gravitational waves from black hole mergers?
  - A) The color of black holes.
  - B) The age of the universe.
  - C) Insights into black hole properties and distribution.
  - D) The composition of neutron stars.

