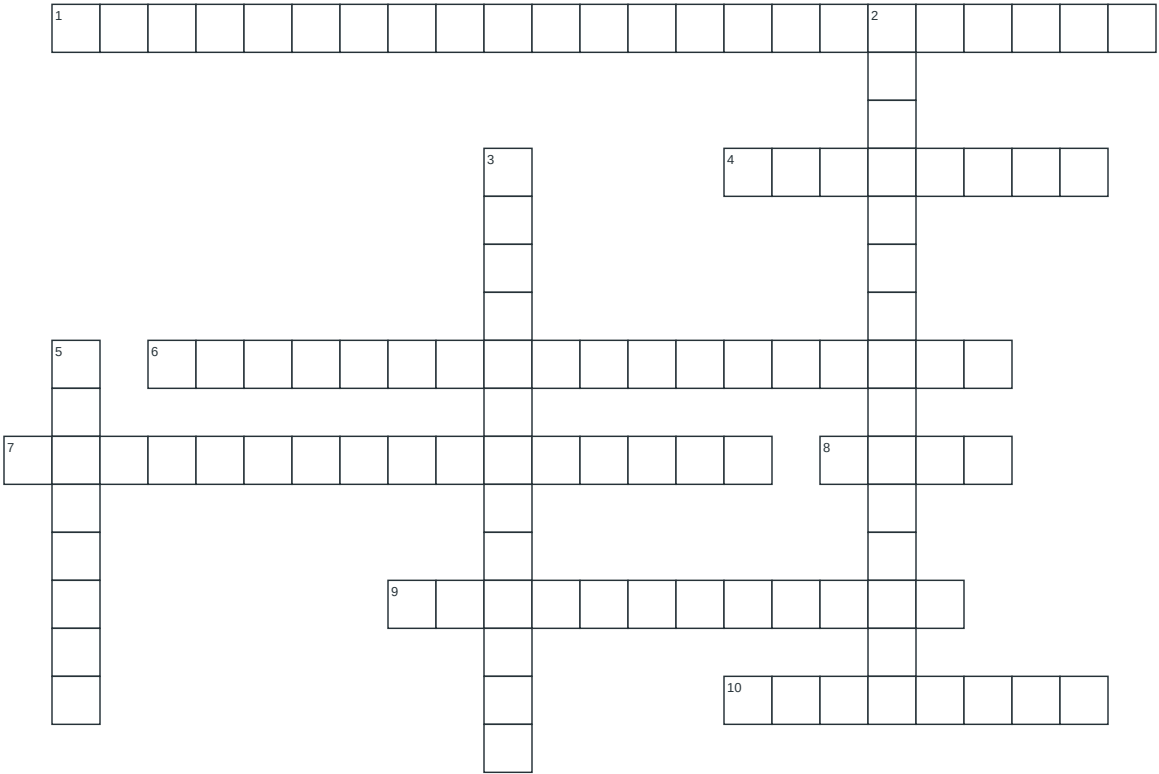


Gravity and Circular Motion Crossword

Easy | 10 clues | Student Worksheet

Name: _____ Date: _____

Directions: Use the clues to complete the grid. Omit spaces, punctuation, and hyphens.



ACROSS

- 1. Becomes one-fourth as large
- 4. Two identical masses move from separation r to separation $3r$. What fraction of the original gravitational force remains
- 6. A description of gravitational force per unit mass at each location
- 7. Inward net force that keeps an object moving along a circular path
- 8. Measure of the amount of matter in an object

ACROSS (continued)

- 9. Process by which gravitational force change if one mass doubles and separation stays fixed
- 10. The total length of a traveled path

DOWN

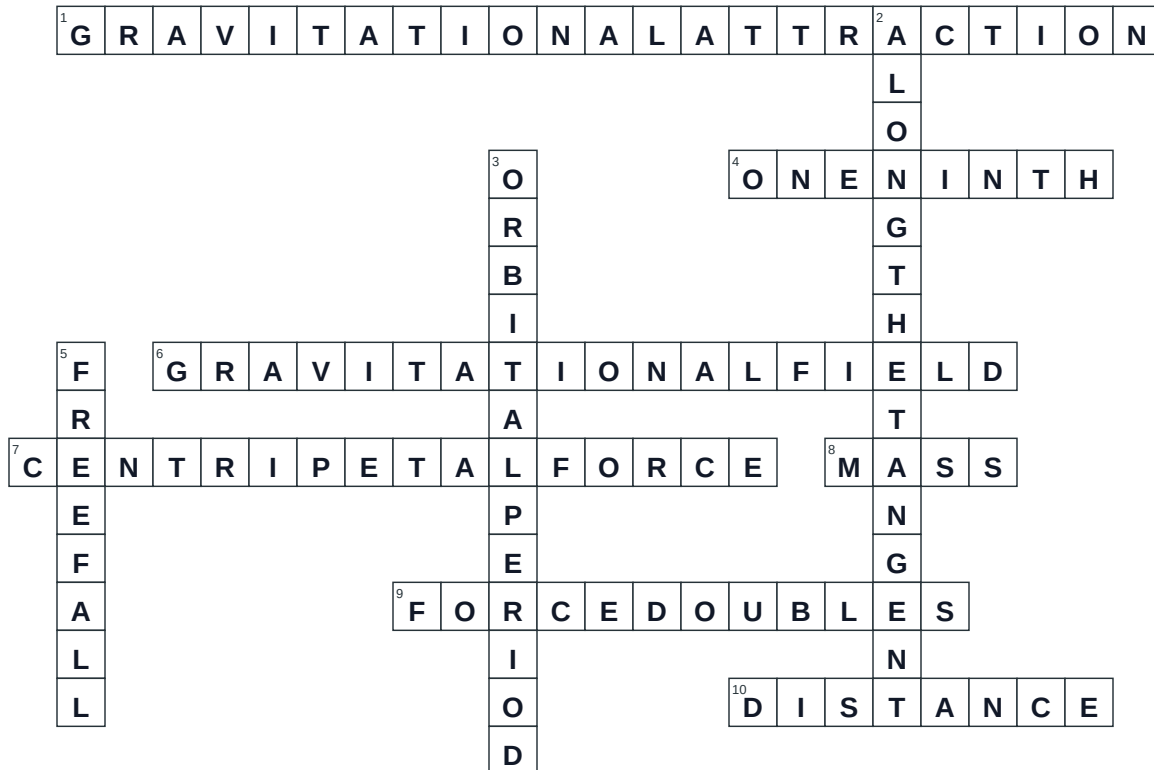
- 2. A ball's supporting string breaks during horizontal circular motion. Neglect other forces for the instant afterward. Which direction does it initially move
- 3. Time required for one complete orbit
- 5. Motion in which gravity is the only force acting

Gravity and Circular Motion Crossword

Easy | 10 clues | Teacher Answer Key

TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



ACROSS

1. Gravitational Attraction
4. One-ninth
6. Gravitational Field
7. Centripetal Force
8. Mass
9. Force Doubles

ACROSS (continued)

10. Distance

DOWN

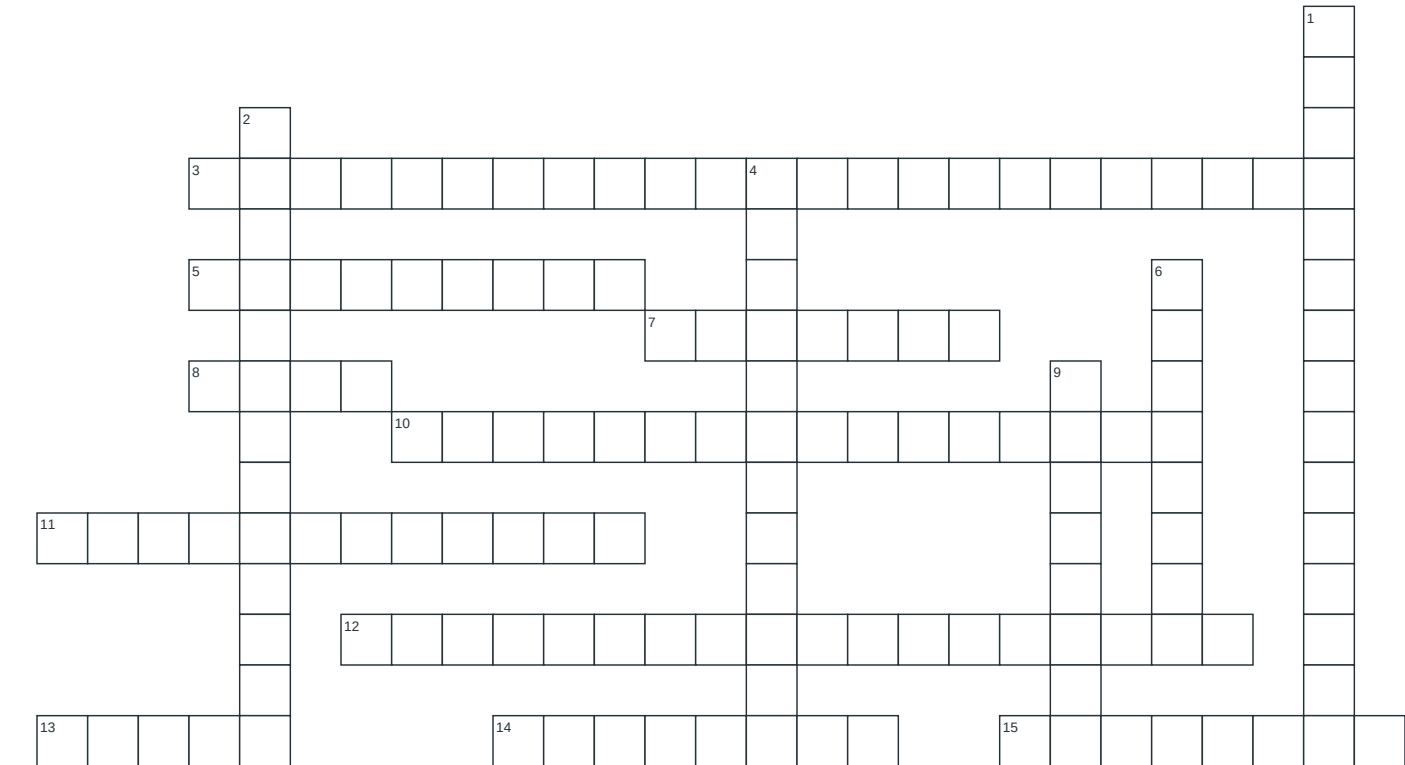
2. Along The Tangent
3. Orbital Period
5. Free Fall

Gravity and Circular Motion Crossword

Medium | 15 clues | Student Worksheet

Name: _____ Date: _____

Directions: Use the clues to complete the grid. Omit spaces, punctuation, and hyphens.



ACROSS

- 3. Becomes one-fourth as large
- 5. Orientation of motion, needed to describe a velocity vector.
- 7. Resistance to changes in motion
- 8. Measure of the amount of matter in an object
- 10. Inward net force that keeps an object moving along a circular path
- 11. Process by which gravitational force change if one mass doubles and separation stays fixed
- 12. A description of gravitational force per unit mass at each location
- 13. Quantity that is a scalar
- 14. The total length of a traveled path

ACROSS (continued)

- 15. Two identical masses move from separation r to separation $3r$. What fraction of the original gravitational force remains

DOWN

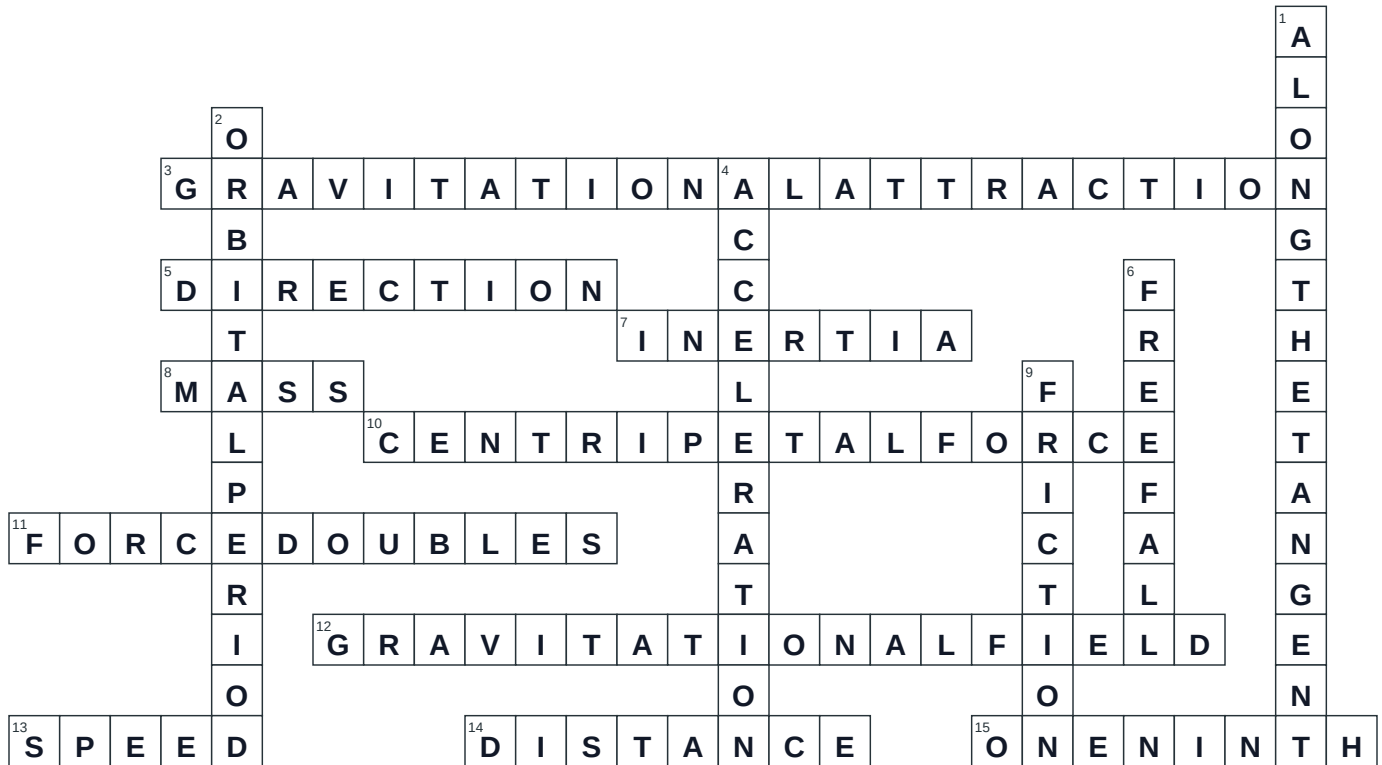
- 1. A ball's supporting string breaks during horizontal circular motion. Neglect other forces for the instant afterward. Which direction does it initially move
- 2. Time required for one complete orbit
- 4. Change in velocity per unit time.
- 6. Motion in which gravity is the only force acting
- 9. Force that opposes relative motion between surfaces in contact.

Gravity and Circular Motion Crossword

Medium | 15 clues | Teacher Answer Key

TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



ACROSS

3. Gravitational Attraction
5. Direction
7. Inertia
8. Mass
10. Centripetal Force
11. Force Doubles
12. Gravitational Field
13. Speed

ACROSS (continued)

14. Distance
15. One-ninth

DOWN

1. Along The Tangent
2. Orbital Period
4. Acceleration
6. Free Fall
9. Friction

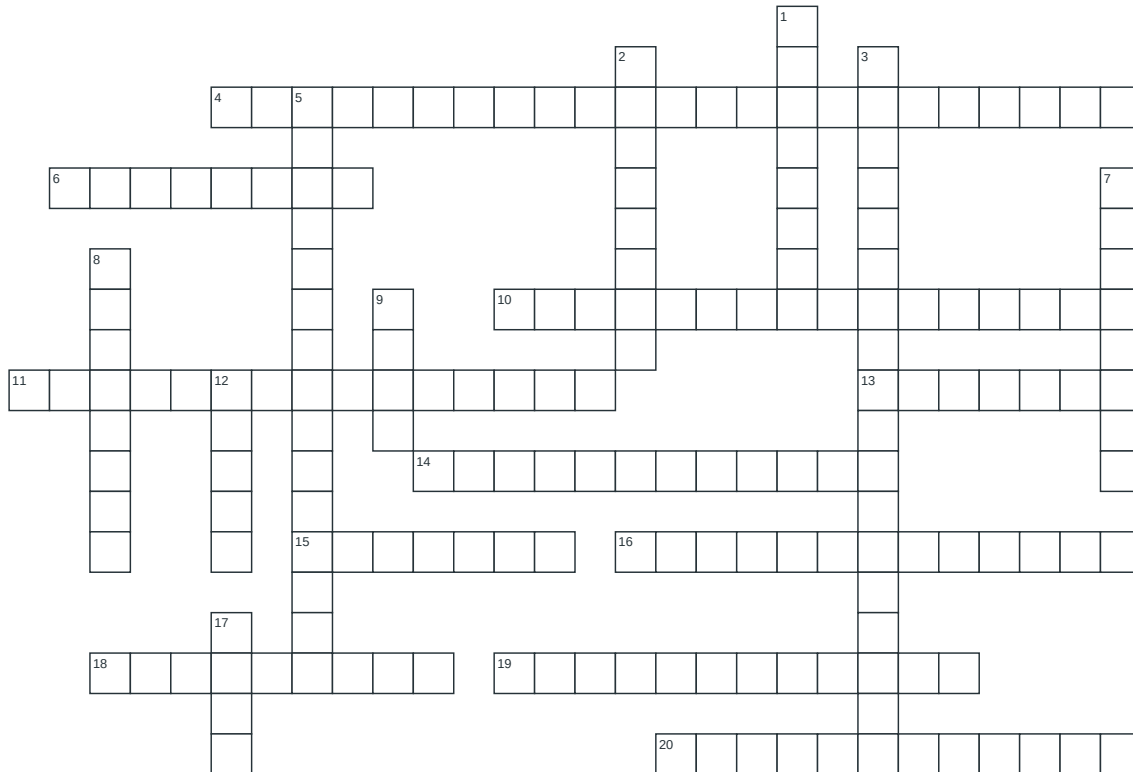
Gravity and Circular Motion Crossword

Hard | 20 clues | Student Worksheet

Name: _____

Date: _____

Directions: Use the clues to complete the grid. Omit spaces, punctuation, and hyphens.



ACROSS

4. Becomes one-fourth as large
6. Force that opposes relative motion between surfaces in contact.
10. Inward net force that keeps an object moving along a circular path
11. SI-derived unit commonly used to measure speed or velocity.
13. Resistance to changes in motion
14. Change in velocity per unit time.
15. In the ideal near-Earth projectile model, which force acts after launch when air resistance is neglected
16. Time required for one complete orbit
18. Orientation of motion, needed to describe a velocity vector.
19. The directed change from initial to final position
20. Process by which gravitational force change if one mass doubles and separation stays fixed

DOWN

1. The vector sum of all forces acting on an object
2. Two identical masses move from separation r to separation $3r$. What fraction of the original gravitational force remains
3. A description of gravitational force per unit mass at each location
5. A ball's supporting string breaks during horizontal circular motion. Neglect other forces for the instant afterward. Which direction does it initially move
7. Motion in which gravity is the only force acting
8. The total length of a traveled path
9. Measure of the amount of matter in an object
12. Quantity that is a scalar
17. State in which position does not change relative to a chosen reference point.

Gravity and Circular Motion Crossword

Hard | 20 clues | Teacher Answer Key

TEACHER ANSWER KEY

Completed grid and numbered answers. Spaces and punctuation are omitted in the grid.



ACROSS

4. Gravitational Attraction
6. Friction
10. Centripetal Force
11. Meters per second
13. Inertia
14. Acceleration
15. Gravity
16. Orbital Period
18. Direction
19. Displacement
20. Force Doubles

DOWN

1. Net Force
2. One-ninth
3. Gravitational Field
5. Along The Tangent
7. Free Fall
8. Distance
9. Mass
12. Speed
17. Rest