Name: _____

vector puzzles

The crossword grid contains the following answers:

- 2 (Across): COINCIDENT
- 4 (Across): COMPONENTS
- 7 (Across): NORMAL
- 8 (Across): FORCE
- 12 (Across): VECTOR
- 14 (Across): MAGNITUDE
- 15 (Across): ASSOCIATIVE
- 17 (Across): COLLINEAR
- 18 (Across): RESULTANTFARCE
- 20 (Across): CARTESIAN
- 1 (Down): OPPOSITION
- 3 (Down): DOT
- 5 (Down): COORDINATE
- 6 (Down): COMMUTATIVE
- 9 (Down): DIMENSIONS
- 10 (Down): PARAMETER
- 11 (Down): PARALLEL
- 13 (Down): EQUAL
- 16 (Down): SCALAR
- 19 (Down): UNIT
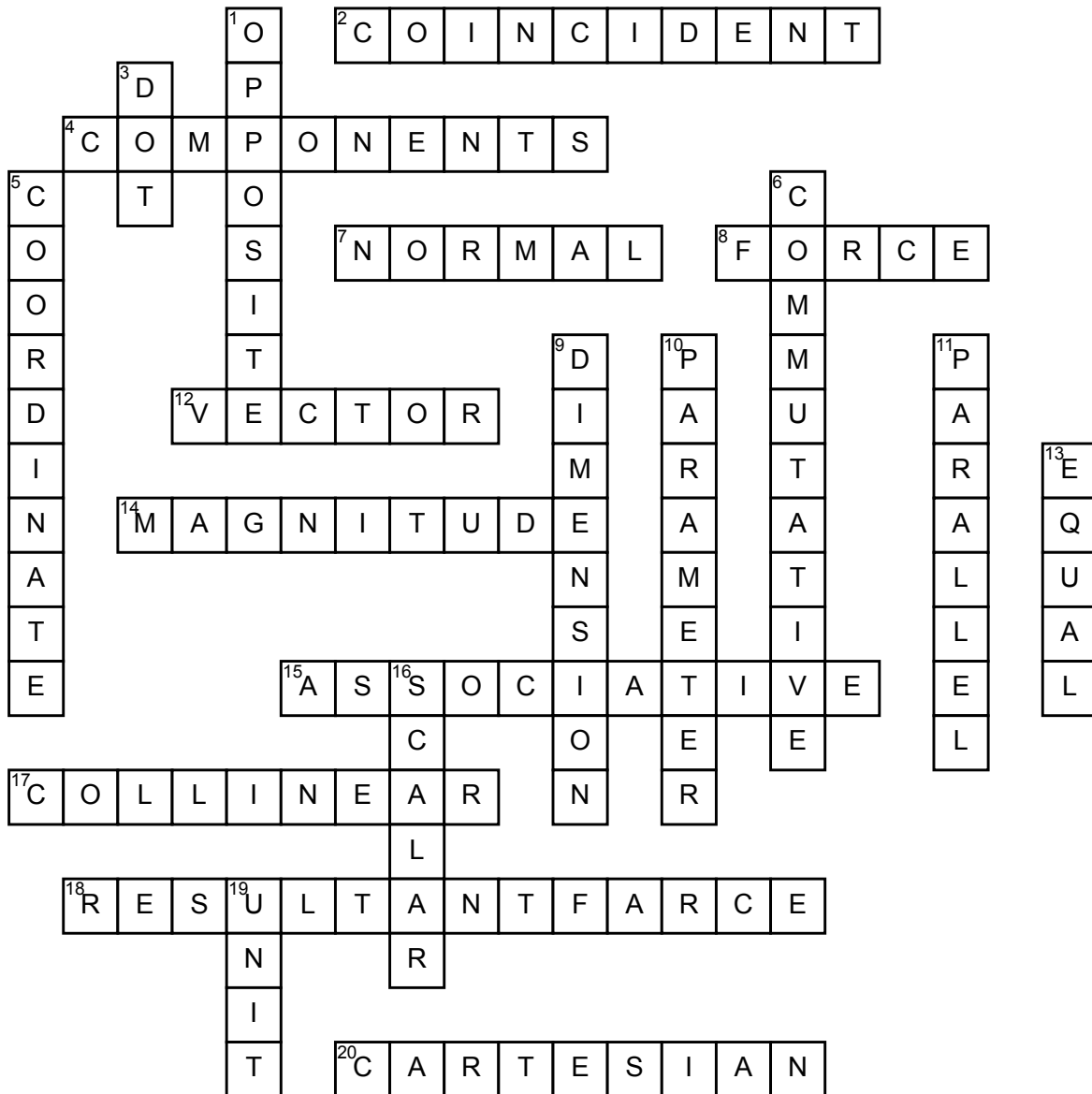
Across

2. two lines have the same direction and same location
4. A vector of dimension n is an ordered collection of n elements, which are called _____
7. the____ to the graph of F at point P is the line that is perpendicular to the tangent at P
8. something that either pushes or pulls an object
12. quantity have magnitude and direction
14. Vector has _____ and direction
15. The _____ law, which states that the sum of three vectors does not depend on which pair of vectors is added first: (a+b)+c=a+(b+c).
17. two vectors are parallel or lie on the same straight line
18. the single force that can be used to represent the combined effect of all the forces
20. _____ equation of a line, also called a scalar equation of a line

Down

1. Two vectors that are _____ have the same magnitude but point in opposite directions
3. _____ product is also named as scalar product
5. A set of values that show an exact position.
6. The _____ law, which states the order of addition doesn't matter: a+b=b+a.
9. The _____ of a mathematical space (or object) is informally defined as the minimum number of coordinates needed to specify any point within it.
10. In either vector or parametric form, t is called a ____
11. There is no intersects between two lines.
13. Two vectors are _____ if their corresponding components are equal.
16. quantity have magnitude
19. A vector with magnitude 1 is called a _____ vector