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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_ | Period: \_\_\_\_\_\_\_ |

Quadratics crossword puzzle

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|  |  |  |  |  |  |  |  |  |  | 1  X | I | N | T | E | R | C | E | P | T |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 2  C |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 3  Q |  |  | O |  |  |  |  |  |  |  |  |  | 4  C |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | U |  |  | E |  | 5  C |  |  |  |  |  | 6  O |  | O |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | A |  |  | F |  | O |  |  |  | 7  M | I | N | I | M | U | M |  |  | 8  S |  |  |  |  |  |
|  |  |  |  |  |  | D |  |  | F |  | M |  |  |  |  |  | E |  | P |  |  |  |  | Q |  |  |  |  |  |
|  |  |  |  |  |  | R |  |  | I |  | P |  |  |  |  |  | R |  | L |  |  |  |  | U |  |  |  |  |  |
|  |  |  |  |  | 9  R | A | D | I | C | A | L |  |  |  |  |  | E |  | E |  |  |  |  | A |  |  |  |  |  |
|  |  |  |  |  |  | T |  |  | I |  | E |  |  |  |  |  | A |  | X |  |  |  |  | R |  |  |  |  |  |
|  |  |  |  | 10  F | O | I | L |  | E |  | T |  |  | 11  Z |  |  | L |  | N |  | 12  I |  |  | E |  |  |  |  |  |
|  |  |  |  |  |  | C |  |  | N |  | I |  |  | E |  |  | S |  | U |  | M |  |  | D |  |  |  |  |  |
|  |  |  |  |  |  | F |  | 13  S | T | A | N | D | A | R | D | F | O | R | M |  | A |  | 14  V | E | R | T | E | X |  |
|  |  |  | 15  C |  |  | O |  |  | S |  | G |  |  | O |  |  | L |  | B |  | G |  |  | X |  |  |  |  |  |
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|  |  |  | N |  |  | M |  |  |  |  | H |  |  | 16  F | A | C | T | O | R | I | N | G |  | O |  |  |  |  |  |
|  |  |  | S |  |  | U |  |  |  |  | E |  |  |  |  |  | I |  |  |  | A |  |  | N |  |  |  |  |  |
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|  | 17  Q | U | A | D | R | A | T | I | C | E | Q | U | A | T | I | O | N |  |  |  | Y |  |  | N |  |  |  |  |  |
|  |  |  | N |  |  |  |  |  |  |  | U |  |  |  |  |  |  |  |  |  | U |  |  | T |  |  |  |  |  |
|  |  |  | T |  |  |  |  | 18  S | Q | U | A | R | E | R | O | O | T |  |  |  | N |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  | 19  V | E | R | T | E | X | F | O | R | M |  | T |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  | 20  D | I | S | C | R | I | M | I | N | A | N | T |  |  |  |  |  |  |  |  |  |  |

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| **Across**  **1.** where the graph crosses the x-axis, and the y-intercepts are where the graph crosses the y-axis  **7.** value of a function is the place where the graph has a vertex at its lowest point  **9.** (√) symbol  **10.** First, Outer, Inner, Last. First means multiply the terms which occur first in each binomia  **13.** a line is in the form Ax + By = C where A is a positive integer, and B, and C are integers.  **14.** a corner or a point where lines meet.  **16.** an important process in algebra which is used to simplify expressions, simplify fractions, and solve equations.  **17.** the highest exponent of this function is 2. The standard form of a quadratic is y = ax^2 + bx + c, where a, b, and c are numbers and a cannot be 0  **18.**  a number is a value that, when multiplied by itself, gives the number. Example: 4 × 4 = 16, so a square root of 16 is 4.  **19.** the common point to join the two line segments  **20.** The number D = b2 – 4ac determined from the coefficients of the equation ax2 + bx + c = 0. | **Down**  **2.**  6z means 6 times z, and "z" is a variable, so 6  **3.** the formula for determining theroots of a quadratic equation from its coefficients: .  **4.** a quantity of the form v + iw, where v and w are real numbers  **5.** a technique used to solve quadratic equations, graph quadratic functions, and evaluate integrals  **6.** it "discriminates" between the possible solutions  **8.** In 8^2 the "2" says to use 8 twice in a multiplication, so 82 = 8 × 8 = 64. In words: 82 could be called "8 to the power 2" or "8 to the second power  **11.** also sometimes called a root, of a real-, complex- or generally vector-valued function f is a member x of the domain of f such that f(x) vanishes at x; that is, x is a solution of the equation f(x) = 0.  **12.** if you square any Real Number you always get a positive, or zero, result. For example 2×2=4, and (-2)×(-2)=4 as well  **15.** a number on its own, or sometimes a letter such as a, b or c to stand for a fixed number |