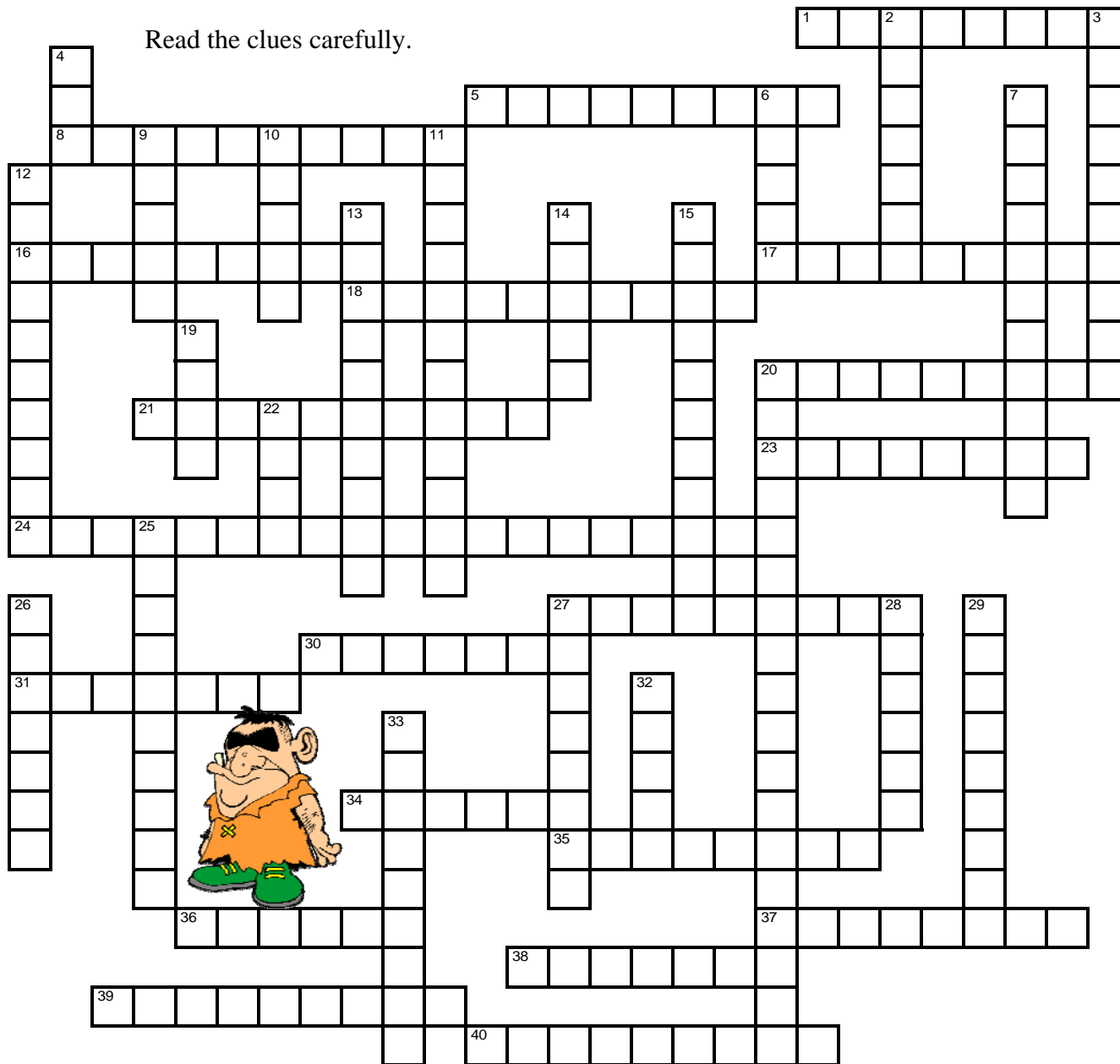


# PreCalculus Vocabulary

Name \_\_\_\_\_

Read the clues carefully.



## Across

- 1 A formula useful for finding powers and roots of complex numbers is known as \_\_\_\_'s Theorem.
- 5 A function made up of a finite number of continuous pieces is described as \_\_\_\_ defined.
- 8 To find each successive term in an arithmetic sequence, add the common \_\_\_\_.
- 16 A method of mathematical proof typically used to establish that a given statement is true of all natural numbers.
- 17 A line that approaches a given curve arbitrarily closely.
- 18 A function with a connected graph possesses \_\_\_\_.
- 20 A technique for determining the number of positive or negative roots of a polynomial is known as \_\_\_\_\_' Rule of Signs.
- 21 A function whose graph moves downward as it is followed from left to right.

- 23 A graph such that every  $x$  in the domain is mapped to exactly one  $y$ -value.
- 24 A method of solving a quadratic equation. (3 words)
- 27 A shorthand method of polynomial division is known as \_\_\_ division.
- 30 A part of a graph which looks like all or part of an upside-down bowl is described as \_\_\_ downward.
- 31 The lowest point in a particular section of a graph is referred to as a relative \_\_\_\_\_.
- 34 The  $x$ -values that can be used in a function.
- 35 A polar curve that is somewhat heart shaped.
- 36 A set of basic functions used as building blocks for more complicated functions are referred to as \_\_\_ functions.
- 37 The function  $y = x$ .
- 38 The function obtained by switching the  $x$ - and  $y$ -variables in a function.
- 39 The line used to term the locus of points for a parabola.
- 40  $3 + 4i$  and  $3 - 4i$  are referred to as \_\_\_ terms.

### Down

- 2 The highest point in a particular section of a graph is referred to as a relative \_\_\_\_\_.
- 3 A root that appears in an equation during the process of solving another equation which is not a solution of the equation to be solved.
- 4 For function  $f$ ,  $f(-x) = -f(x)$ .
- 6 The Greek letter used to indicate "sum".
- 7  $f(g(x))$  where  $f$  and  $g$  are functions.
- 9 A parabola is the locus of points such that the distance to the \_\_\_ equals the distance to the directrix.
- 10 To find each successive term in a geometric sequence, multiply by the common \_\_\_\_\_.
- 11 In an ellipse, this number is between 0 and 1, in a parabola it is 1 and in a circle it is 0.
- 12 A sequence such as 3, 6, 9, 12, 15, ...
- 13 A function whose graph moves upward as it is followed from left to right.
- 14  $y$ -values that are used by a function.
- 15 The number associated with a square matrix.
- 19 For function  $f$ ,  $f(-x) = f(x)$ .
- 20 The name given to  $\frac{f(x+h) - f(x)}{h}$ . (2 words)
- 22 The location where an equation crosses the  $x$ -axis.
- 25 The sum of a finite number of terms of a sequence. (2 words)
- 26 A number such as  $5 + 7i$ .
- 27 A list of numbers set apart by commas, such as 2, 4, 6, 8, 10, ...
- 28 A method for solving a linear system of equations using determinants is called \_\_\_'s Rule.
- 29 The sequence 1, 1, 2, 3, 5, 8, 13, ....
- 32 Coordinates of the form  $(r, \theta)$ .
- 33 A sequence such as 4, 8, 16, 32, 64, ...