



# READING STRATEGY

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## INTRODUCTION

Always first read the passage introduction to find out who, what, where, when, and why

## MAP THE PASSAGE

You don't have to remember key details or themes, just where to find them

## MAIN IDEA

Focus on identifying the main idea and refer back to the main idea when answering questions

## STRATEGIZE

Find what works best for you (reading the questions first and then the passage or vice versa). If you choose to skim the passage, don't skim the questions

## ZOOM OUT

Zooming out will help you figure out the tone and main idea

## tone

The author's attitude (positive, negative, or neutral)

## ELIMINATE

Avoid answers that are too specific, too broad, extreme, offensive, reverse relationship, opposite to or unrelated to the main idea

## READ

To improve your reading speed and comprehension, read a variety of challenging material

[www.carlabarry.com/read](http://www.carlabarry.com/read)

## "BUT"

Key information about the main idea usually comes after "but," "however," "although," etc.

## DUAL PASSAGES

Answer dual passages one passage at a time

## OWN WORDS

Cover the answer choices and first answer the question using your own words then pick the answer choice that best matches your idea

## LINE REFERENCES

- Read before and after line references
- Plug in the line reference into the previous question to see which line fits best (for evidence questions)

# WRITING & LANGUAGE STRATEGY

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## BEWARE

-ing, being, it, was, and long answer choices

## SEMICOLON

Semicolon separates two complete sentences (SV ; SV)

## REDUNDANCY

Be concise and avoid redundancy

- Avoid overly wordy phrases
- Combine simple sentences

## COMMAS

- SV, and SV
- dependent clause, independent clause
- ,non essential words/phrases,
- used to separate items in a list
- after introductory words or phrases
- to separate adjectives whose order could be reversed

## CONSISTENCY

Keep pronouns consistent (you....you or one....one)

## MODIFIERS

Check what comes after the comma  
Ex: Born in Mexico, Frida Kahlo

## PRONOUNS

- Pronouns must be clear in reference and number
- Plural: they, them, their, themselves
- Singular: it, she, him, + collective nouns

## VERBS

- Subject and verb agreement (eliminate prepositional phrases)
- See time (1800s, summer, etc.), think tense

## PARALLELISM

Parallel sentence structure (-ing, -ing, -ing, .... to, to, to... noun, noun, noun

## MEANING

- transitions
- adding/deleting sentence
- placing sentences

## WORD PAIRS

neither....nor  
either....or  
not only....but also  
as.....as

## PICK ONE

who vs. whom  
who's vs. whose  
than vs. then  
they're, their, there  
like vs. as

# MATH STRATEGY

## ZOOM IN

Zoom in to find what the question is asking  
Be wary of two-part questions

## STRATEGY

- Look for patterns and the most reasonable answer choice
- Pick which questions to answer first
- Keep track of time (same point for hard question as easy question)

## PICK NUMBERS

- Pick numbers for variables (don't pick "1" or numbers that are multiples of each other)
- Solve problem using your numbers
- Plug numbers into answer choices & pick the answer that matches yours

## MEAN, MEDIAN, MODE & THE RANGE

- Mean = average
- Median is the # in the middle after rearranging from low to high
- Mode the # that appears the most
- Range is the difference between the lowest and highest values

## CONJUGATE

Used to rationalize complex numbers and radicals in the denominator

## DOMAIN & RANGE

Domain (look at x-axis)  
Range (look at y-axis)

## TRIANGLES

- Always draw right triangles
- Similar triangles have the same respective proportions & trigonometric ratios
- Radii of a circle form isosceles triangles

## EQUATIONS FOR A LINE

slope intercept \_\_\_\_\_  
standard \_\_\_\_\_  
point slope \_\_\_\_\_

## THINK

Before jumping in and doing the problem, think about what math concept the problem is addressing

## SHOW YOUR WORK

Don't do problems in your head or only on the calculator. This will enable you to check your work if time allows

## PARABOLAS

vertex form \_\_\_\_\_  
y-intercept form \_\_\_\_\_  
x-intercept form \_\_\_\_\_

## MORE PARABOLAS

equation for x value of vertex \_\_\_\_\_  
(+) leading coefficient \_\_\_\_\_  
(-) leading coefficient \_\_\_\_\_

## EQUATION OF A CIRCLE

\_\_\_\_\_  
\_\_\_\_\_

## PEMDAS

Parentheses, exponents, multiplication, division, addition, and subtraction

## PERCENTAGE

If original amount is not given, pick "100"  
• part/whole  
• difference/original  
• increased by x percent  $\rightarrow 1 + \text{decimal}$   
• decreased by x percent  $\rightarrow 1 - \text{decimal}$

## FACTORING

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## MEMORIZE

Key equations, formulas, and the directions at the beginning of each math section

## GRAPHS

- Identify the slope, x-intercept(s), and y-intercept(s)
- Read the labels
- Pay attention to the scale!
- "xy-plane"  $\rightarrow$  graph

## CALCULATOR

- MATH  $\rightarrow$  FRAC, nth roots, numeric solver, and absolute value
- APPS  $\rightarrow$  POLYSMLT, INEQUALZ, and CONICS
- Y =
- i

## PRIME NUMBERS

Prime numbers are positive integers that are only divisible by themselves and "1" (1 is not prime | no negative prime numbers)

## INTEGERS

Whole numbers, including zero and negative whole numbers

## PROBABILITY

(desired possibilities)/(total possibilities)  
and  $\rightarrow$  multiply probabilities  
or  $\rightarrow$  add probabilities

## WORD PROBLEMS

of | multiplication  
sum | addition  
difference | subtraction  
product | multiplication  
quotient | division

## Y-INT, X-INT, & SLOPE

x-intercept \_\_\_\_\_  
y-intercept \_\_\_\_\_  
slope \_\_\_\_\_

# MATH STRATEGY CONTINUED

## AREA OF A SECTOR

### SOHCAHTOA

SIN \_\_\_\_\_  
 COS \_\_\_\_\_  
 TAN \_\_\_\_\_

### TRIG TABLE

	0	30	45	60	90
SINθ					
COSθ					

### QUADRATIC FORMULA & THE DISCRIMINANT

discriminant \_\_\_\_\_  
 (+) \_\_\_\_\_  
 (-) \_\_\_\_\_  
 zero \_\_\_\_\_

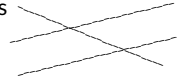
### EXPONENT RULES

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## ARC LENGTH

### PARALLEL LINES

- alternate interior angles
- alternate exterior angles
- corresponding angles
- vertical angles



### i

- Square root of -1
- Using your calculator

### ABSOLUTE VALUE

- Isolate the absolute value expression
- Set the quantity inside the absolute value notation equal to + and - the quantity on the other side of the equation
- Solve each equation for the unknown
- Check answers by plugging them back into the absolute value expression

### REFERENCE INFORMATION

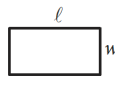
PROVIDED AT THE BEGINNING OF EACH MATH SECTION

#### REFERENCE

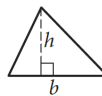


$$A = \pi r^2$$

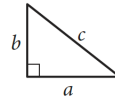
$$C = 2\pi r$$



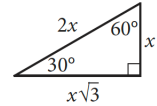
$$A = \ell w$$



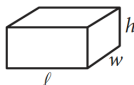
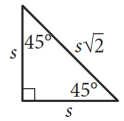
$$A = \frac{1}{2}bh$$



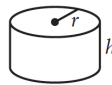
$$c^2 = a^2 + b^2$$



Special Right Triangles



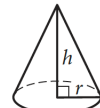
$$V = \ell wh$$



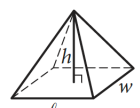
$$V = \pi r^2 h$$



$$V = \frac{4}{3}\pi r^3$$



$$V = \frac{1}{3}\pi r^2 h$$



$$V = \frac{1}{3}\ell wh$$

The number of degrees of arc in a circle is 360.

The number of radians of arc in a circle is  $2\pi$ .

The sum of the measures in degrees of the angles of a triangle is 180.

## VARIABLE EXPONENTS

- Make the same base
- Set exponents equal to each other
- Solve

### DISTANCE

$$\text{distance} = (\text{rate})(\text{time})$$

### MIDPOINT

### NO SOLUTION VS. INFINITE SOLUTIONS

no solution \_\_\_\_\_  
 infinite solutions \_\_\_\_\_