Study the following.

variable (**vair**-ee-uh-buhl) - a letter that may have different values depending on the problem. (For this problem, the q had a value of 4.)

equation (i-**kway**-zhuhn) – an equation in math has an equal sign (=). It can include numbers, variables, and other operations (+, – , ×, ÷). (5 + r = 7 is an equation.) (5 = 2 × g is an equation.)

formula (**for**-myuh-luh) - a special equation that always works for a certain type of problem. (I used the formula $C = \pi \times d$ to find the circumference of the circle.)

substitute (**suhb**-stuh-toot) - to put something else in instead. In math substitute means to put in a number instead of the variable in a formula. (I substituted an 8 for the d in the formula $C = \pi \times d$.)

replace (ri-**playss**) - another word meaning substitute

plug in (**pluhg in**) – another word meaning substitute

Say each word out loud and write it in the blank.

variable_____
equation_____
formula_____
substitute_____
replace_____
plug in_____

Write each definition in your own words.

variable

equation

formula

substitute

replace

plug in

Write two sentences using each word.

variable
1.

2.

equation
1.

2.

formula
1.

2.

substitute
1.

2.

replace
1.

2.

plug in
1.

2.

Matching.

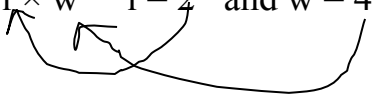
variable	to put something else in instead
equation	to put something else in instead
formula	to put something else in instead
substitute	it has an equal sign (=).
replace	a letter that may have different values
plug in	a special equation that always works for a certain type of problem

Study the following.
Example 1:

Use the formula $A = l \times w$ Find A if $l = 2$ and $w = 4$

Substitute 2 for the l, and 4 for the w as shown below

$A = l \times w \quad l = 2 \quad \text{and } w = 4$



to get $A = 2 \times 4$

Then multiply to get $A = 8$

Example 2:

Use the formula $P = s + s + s + s$ Find P if $s = 3$

Replace s with 3 to get $P = 3 + 3 + 3 + 3$

Then add to get $P = 12$

Solve the following using the formulas and the indicated values of the variables.

1. formula: $A = l \times w$ values: $l = 3$ and $w = 5$

2. formula: $A = l \times w$ values: $l = 4$ and $w = 10$

3. formula: $P = s + s + s + s$ values: $s = 2$

4. formula: $P = s + s + s + s$ values: $s = 5$

5. formula: $C = \pi \times d$ values $\pi = 3.14$ and $d = 2$

6. formula: $C = \pi \times d$ values $\pi = 3.14$ and $d = 1$

7. formula: $V = l \times w \times h$ values $l = 2$, $w = 2$, and $h = 3$

8. formula: $V = l \times w \times h$ values $l = 3$, $w = 3$, and $h = 4$