

**CYU 1.4 Exponent, Order of Operation, Variable Expressions & Equations DAY THREE**

*Use when you get it right all by yourself*

**S** *Use when you did it all by yourself, but made a silly mistake*

**H** *Use when you could do it alone with a little help from teacher or peer*

**G** *Use when you completed the problem in a group*

**X** *Use when a question was attempted but wrong (get help)*

**N** *Use when a question was not even attempted*

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Translating words to mathematical sentences	1acdegh	1bf	1ij
Operation Symbols: +, -, ·, ÷	2		
Order of Operations: PEMDAS	2	3	5
Perimeter/Area	4a - d	4e - h	
Equation VS Expression	6		

1. Write each sentence as an equation or inequality. Use  $x$  to represent any unknown number.
  - a. One increased by two equals the quotient of nine and three.
  - b. Four subtracted from eight is equal to two squared.
  - c. Three is not equal to four divided by two.
  - d. The difference of sixteen and four is greater than ten.
  - e. The sum of five and a number is twenty.
  - f. Seven subtracted from a number is zero.
  - g. The product of 7.6 and a number is 17.
  - h. 9.1 times a number equals 4.
  - i. Thirteen minus three times a number is 13.
  - j. Eight added to twice a number is 42.

2. Fill in each blank with one of the following operations: add, subtract, multiply, or divide.
- To simplify the expression  $1 + 3 \cdot 6$ , first \_\_\_\_\_.
  - To simplify the expression  $(1 + 3) \cdot 6$ , first \_\_\_\_\_.
  - To simplify the expression  $(20 - 4) \cdot 2$ , first \_\_\_\_\_.
  - To simplify the expression  $20 - 4 \div 2$ , first \_\_\_\_\_.
3. Are parentheses necessary in the expression  $2 + (3 \cdot 5)$ ? Explain your answer.

4. Fill in the chart below.

Length: l	Width: w	Perimeter of a Rectangle	Area of a rectangle
4 in	3 in	a)	b)
6 in	1 in	c)	d)
5.3 in	1.7 in	e)	f)
4.6 in	2.4 in	g)	h)

5. Insert a set of parentheses so that the following expression simplifies to 32.  $20 - 4 \cdot 4 \div 2$
6. Determine whether each is an expression or an equation.
- $5x + 6$
  - $2a = 7$
  - $3a + 2 = 9$
  - $4x + 3y - 8z$
  - $5^2 - 2(6 - 2)$

**CYU Reflection:** *How far can you go: basic, intermediate, or advanced?*

**Rate your mastery level!**

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

