

1-1 Variables and Expressions

Variable - varies
and can be any
number

Expression
 $\boxed{\$2d}$ \swarrow understood $\$2 * d$
 show mathematical
 relationships without
 an equal sign.

Eating Contest

$\$2d$ variable
 $d = 50$ $\$2(50) = \100
 $\$2d$ $\frac{\$2d = \$100}{\text{equation}}$
 $d = 20$ $\$2(20) = \40
 $\$2d$ $\$2(30) = \60
 $d = 30$ $\$2d$ $\$2(4) = \8
 $d = 4$ $\$2d$ $\$2(30) = \60
 $d = 30$

j decreased by 9

\ominus
 $\boxed{j - 9}$

Translate into math

algebraic expression

two more than y
 $\boxed{2 + y}$ or $y + 2$

(+) plus, add, more than, increased by, sum

The [⊕]sum of a and 3
 $a + 3$

(-) subtraction, minus, decreased by, difference
less than

The difference between c and 8
 $c - 8$
12 less than d $d - 12$ $\Downarrow = 4$

Nate had 2 less friends than Elys.
 $Elys - 2 = 2 - 2 = 0$

(*) times, multiply, product
twice (*2)

$3 * h$ The product of 3 and h
 $3 * h$ or $3h$

The product of 3 and 4
 $3 * 4$

(÷) Division quotient

The quotient of t and 7
 $t \div 7$ $t / 7$

The difference between 10 and x
 $10 - x$

Difference between 5 and 2 $5 - 2$

The sum of g and 8
 $g + 8$

7 more than the product of 3 and d
 $7 + (3 * d)$ $(3 * d) + 7$

5 less than the quotient of s and 2

$$\boxed{(s/2) - 5}$$
$$\boxed{(s \div 2) - 5}$$

$s \div 2 - 5$
OK

1-2 Order of Operations

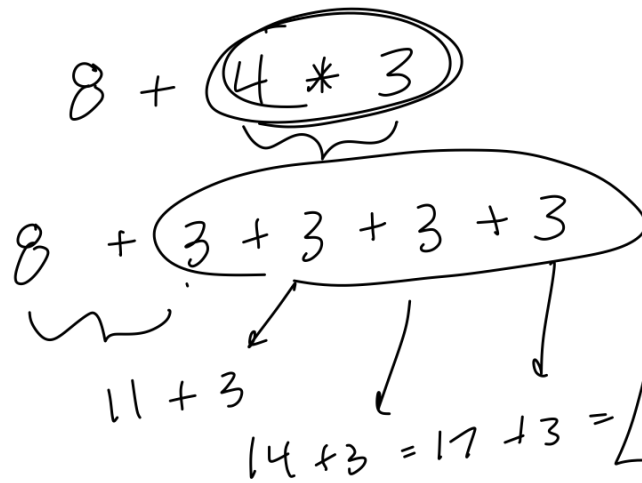
PEMDAS

P arentesis

E xponents

M D Mult/Division in order from L → R

A S Add/subtraction in order from L → R



Multiplication is an advanced form of addition

$8 + 4 * 3$
 $12 * 3 = 36$

$8 + 4 * 3$
 $8 + 12 = 20$

Multiplication $\frac{1}{3}$ Division Same Plane

$24 \div 12 * 2$
 $\frac{2}{3} \div (\frac{3}{4}) * \frac{4}{3} = \frac{8}{9}$

$24 \div 12 * 2$
 $2 * 2 = 4$
 $24 \div 12 * 2$
 $24 * \frac{1}{12} * 2$
 $24 \div 12 * 2$
 $24 \div 24 = 1$
 $\frac{24}{12} = 2$
 $2 * 2 = 4$

$$18 - 10 + 2$$

$$\underbrace{18 - 10} + 2$$

$$8 + 2 = \textcircled{10}$$

$$18 - \underbrace{10 + 2}$$

$$18 - 12 = 6$$

$$\underbrace{18 - 10} + 2$$

$$18 + (-10) + 2$$

$$8 + 2 = \boxed{10}$$

P
~~X~~
MD
AS

P
E
DM
SA

~~P~~
~~E~~
~~MD~~
AS

$$\underbrace{4 \cdot 9} + 8 \div 2 - 6 \cdot 5$$

$$L \rightarrow 36 + \underbrace{8 \div 2} - 6 \cdot 5$$

$$36 + 4 - \underbrace{6 \cdot 5}$$

$$\underbrace{36 + 4} - 30$$

$$40 - 30 = 10$$

HW Paper
Review of ch 1.1
1.1 evens
1.2 evens
online homework
Thurs
Quiz 2 due
sept 29th

