

Lesson 6 Continued

Sept 13,  
2022

\* Order of Operations  
(Find value of)

\* Evaluating Math Expression  $\bar{w}$

Focus on Brackets [ ] ( )

expression/statement/no = equation =

. evaluate

i. ex  $4 + 2 - [3 + (10 - 15)]$   
1st

$4 + 2 - [3 + (-5)]$   
1st

$4 + 2 - (-2)$   
1st

$6 - (-2)$   
 adjacent

$6 + 2$

8

iii.  $4 + 2 = 6$

Step i. Read expression

Step ii. Circle which operation to do 1st.

How to know which one? Follow BEDMAS

- ① B - Brackets smallest brackets
  - ② E - Exponents 1st
  - ③ { D - Division operation  
M - multiplication on left 1st
  - ④ { A - Addition operation  
S - subtraction on left 1st
- \* \* very important, add later to memory aid!

if - with no [ ], then subtract  
 if - before [ ], then subtract.

a)  $4 + 2 - [3 + (10 - 15)]$

if - after [ ], then x

b)  $18 \times [-4 \div (2 \times (-2))] \div 3$

$18 \times [-4 \div (-4)] \div 3$

$18 \times (1) \div 3$

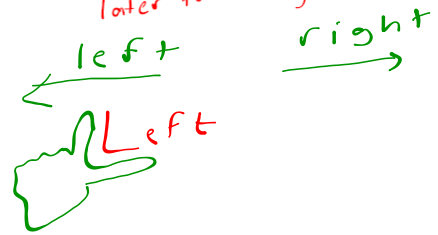
$18 \div 3$

6

step:  
 Read exp and  
 add x signs

know when

- ① B - Brackets - smallest brackets 1st
  - ② E - Exponents - operation
  - ③ { D - Division - operation on left 1st
  - M - multiplication - operation on left 1st
  - ④ { A - Addition - operation on left 1st
  - S - subtraction - operation on left 1st
- very important, add later to memory aid!



You do ( ) - ( )

New stuff  
 @ 2:45

## Evaluating Expression Wout Brackets

ex. 1. Evaluate

$$\underline{-4} \times 5 + 3 \times (-2) - 6$$

1st

$$-20 + 3 \times (-2) - 6$$

$$\underline{-20 + (-6)} - 6$$

$$-26 - 6$$

$$-26 + (-6)$$

$$-32$$

① B

② E

③ { D or M } Do opt. on left

④ { A } S

order

Evaluate

$$3. \quad 8 - 9 \times 2 \div (-6) + (-5)$$

$$8 - 18 \div (-6) + (-5)$$

$$8 - (-3) + (-5)$$

$$8 + 3 + (-5)$$

$$11 + (-5)$$

6

B

E

③ { D or do operation on left  
M or

④ { A or  
S

← left      right →

Evaluating Expressions (hardest)

Evaluate:

1.  $7 \times 3 + 5 \times (-8 + (-2))$

$7 \times 3 + 5 \times (-10)$

$21 + 5 \times (-10)$

$21 + (-50)$

$-29$

Step i.Read and  
add x if  
needed~~① B~~~~② E~~③ {  
D  
M④ {  
A  
S

3. Evaluate  $(-2) - 6$  v.s.  $(-2)(-6)$   
 -2 subtract 6 -2 times -6

$$[ 7 + 8 \times (3 + 2) - 6 \times (4 \div (-2)) ] + 7$$

$$[ 7 + 8 \times (5) - 6 \times (-2) ] + 7$$

\* if there's a # and bracket, the opt. is x

B.  
E  
D  
M  
A  
S

$$[ 7 + 40 - (-12) ] + 7$$

$$[ 47 + 12 ] + 7$$

$$(59) + 7$$

$$66$$