

BE-Alg.1 Thursday 8-18-11

CONVERT TO decimal and % (Nearest whole %):

① $\frac{5}{9}$

② $\frac{12}{15}$

③ $\frac{1}{8}$

EVALUATE:

④ $(-6)^2$

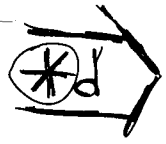
⑤ $(-1)^{18}$

⑥ -5^2

• Homework review:

<u>Per</u>	<u>Fraction</u>	<u>%</u>
1	$\frac{9}{26} = .346$	35%
2	$\frac{5}{22} = .227$	23%
3	$\frac{23}{26} = .88$	88%
4	$\frac{15}{19} = .789$	79%
5	$\frac{14}{20} = \frac{7}{10} = .7$	70%
7	$\frac{15}{24} = \frac{5}{8} = .625$	63%

}  Simplify First!



Grouping Symbols

()

PARENTHESES

* KNOW
HOW TO
SPELL

[]

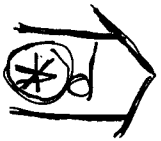
BRACKETS

{ }

BRACES

* KNOW HOW
TO DRAW

FRACTION BAR, USED TO
SHOW BOTH DIVISION
AND GROUPING



"NESTED" Grouping Symbols $\Rightarrow$ means
a grouping symbol inside ANOTHER.

Preferred order of nesting:

{ [()] }

SOLVE THIS problem individually - do
NOT look AT your neighbors work or
talk to your neighbor please!

$$8 \div 2 \cdot 2 + 3$$

Did you get 5 or 11?

Which is correct?

*) We need a CONVENTION AN Agreed
upon way of doing things, like which
side of the road to drive on.

What is the "Order of Operations"?

↑
WHAT comes
1st, 2nd, etc

↑
+, -, ·, ÷

There are 4 steps, 2 of the steps are done from left-to-right, they are:

$$PE(MD)(AS)$$

① ② ③ ④

- ① Parentheses or any grouping, everything inside a grouping becomes its own "baby" $PE(MD)(AS)$ problem
- ② Exponents
- ③ Multiplies OR Divides, whichever comes first, as you go left-to-right.
- ④ After ALL mult/divides done, DO ADDS OR subtracts, whichever comes first, as you go left-to-right.

NOTE: Difference between "scientific" calculators and simple add/subtract calculators? $\rightarrow$ Do order of Ops!

* EX ① EX ② EX ③ (Pg 11 & 12 of text)

① A $3 + 2 \cdot 3 + 5$

$3 + 6 + 5$

$9 + 5 = \boxed{14}$

REWRITE LOOK
EACH LINE !!

⑥ $15 \div 3 \cdot 5 - 4^2$

$15 \div 3 \cdot 5 - 16$

$5 \cdot 5 - 16$

$25 - 16 = \boxed{9}$

② A $2(5) + 3(4+3)$

$2(5) + 3(7)$

$10 + 21 = \boxed{31}$

baby PE(MD)(AS) problem
↓
(4+3)

③ $2 [5 + (30 \div 6)^2]$

$2 [5 + (5)^2]$

$2 [5 + 25] = 2 [30] = \boxed{60}$

③

2 ↗
SEPARATE
"baby"
PE(MD)(AS)
problems

$$\frac{6 + 4^2}{3^2 \cdot 4} = \frac{6 + 16}{9 \cdot 4} = \frac{22}{36} = \boxed{\frac{11}{18}}$$