

BE-Alg. 1A MONDAY 8-16-10

Convert to a decimal by long division:

① $\frac{3}{8}$

② $\frac{4}{9}$

③ WHAT KIND OF DECIMAL DO YOU GET IN #1 AND #2?

④ WHO WROTE THE FIRST ALGEBRA BOOK AND WHERE DID HE LIVE?

⑤ WHICH IS THE preferred way to write "3 times the variable named E" AND WHY?

Ⓐ $3 \times E$ Ⓑ $3 \cdot E$ Ⓒ $3(E)$ Ⓓ $3E$

• TAKE OUT YOUR HOMEWORK (2 pages) OR "reason"

{ + forms }

- LONG DIVISION
- MATH OPINIONS

I WILL EXPLAIN 😊

• MATH & CREATIVE LIVES/DISLIKES

• TAKE OUT YOUR MATH SUPPLIES FOR A "supplies" check.

ANSWERS

BE - ANSWERS

$$\textcircled{1} \quad \frac{3}{8} \Rightarrow 8 \overline{) 0.375}$$

$$\begin{array}{r} 0.375 \\ 8 \overline{) 3.000} \\ \underline{-24} \\ 60 \\ \underline{-56} \\ 40 \end{array}$$

$$\boxed{\frac{3}{8} = 0.375}$$

TERMINATING ← $\textcircled{3}$

$$\textcircled{2} \quad \frac{4}{9} \Rightarrow 9 \overline{) 0.4}$$

$$\begin{array}{r} 0.\overline{4} \\ 9 \overline{) 4.00} \\ \underline{36} \\ 40 \end{array}$$

$$\boxed{\frac{4}{9} = 0.\overline{4}}$$

Repeating ← $\textcircled{3}$

$\textcircled{4}$ 1st Algebra book by [Al-Kwarizmi]
from [Persia or city of Baghdad]

$\textcircled{5}$ [3E] preferred because simpler, "implied" multiplication.
↑ ALWAYS PUT THE NUMBER FIRST, 3E NOT E3. LOOK

↑ THIS IS WHAT your Best Scored notes look like in your notes. After we finish going over it, your corrected BE notes is a good source of items to organise in your notes when you go over them at home.

NOTE:

YOU CAN WRITE THE ANSWER TO $\frac{4}{9}$

TWO WAYS:

① $\frac{4}{9} = .444\dots$ using AN ellipsis to show "the pattern continues"

② $\frac{4}{9} = .\overline{4}$ using THE bar to indicate the repeating part.

CONVERTING A decimal number TO A per cent

per cent $\Rightarrow \frac{\text{per}}{100}$

"CENT" means 100

EX) 100 cents in a dollar
100 years in a century

⑩ THE SYMBOL $\Rightarrow$ means "leads to". It is used to make your math more "READABLE."

In our base 10 number system, 100 is always 2 decimal places. So to change a decimal to a per cent, move 2 places TO THE RIGHT.

⑩ EX) $0.41 = 41\%$ smaller $\leftarrow$ $\bullet$ $\rightarrow$ bigger

$$0.20 = 20\%$$

$$0.3 = 30\%$$

$$0.516 = 51.6\%$$

$$0.\bar{3} = 33.\bar{3}\%$$

$$0.024 = 2.4\%$$

$$1 = 100\%$$

$$1.42 = 142\%$$

⚡
A bubble
is an easy and
neat way to
organize an
oh, BTW item
in your work
or notes

*① DP means what in baseball?

"Double Play"

Use this to Remember to move
2 (double) places when going
from Decimal to Percent

$D \rightarrow P \Rightarrow$ move 2 to right

$$\text{Ex) } 0.04 = \boxed{4\%}$$

$D \leftarrow P \Rightarrow$ move 2 to left

$$\text{Ex) } 75\% = 75.0\%$$

$$= \boxed{.75}$$

$$\text{or } \boxed{0.75} \text{ better}$$

To convert a percent to a decimal
(which you must do BEFORE you use it
to $+$, $-$, $\cdot$, or $\div$ numbers), you simply move
the decimal 2 places to the left.

(*) EX

$$50\% = 0.5$$

$$42\% = 0.42$$

$$3.65\% = 0.0365$$

$$110\% = 1.10$$

Find the imaginary
decimal if you need
to.

Number Sense:

multiply by 10 $\Rightarrow$ ADD 1 zero (EX) $24 \cdot 10 = 240$
 $821 \cdot 10 = 8210$

multiply by 100 $\Rightarrow$ ADD 2 zeros (EX) $8 \cdot 100 = 800$
 $15 \cdot 100 = 1500$

You are really moving to right ONE decimal place
for each "10" using zero as a placeholder.
If you already have a decimal point, just
move over by the number of "10"s.

(EX) $1.8 \cdot 10 = 18$

(EX) $2.51 \cdot 100 = 251$

(EX) $3.625 \cdot 10 = 36.25$

Fraction to Percent Example

Number of Students That Turned in Parent Letter and Contact Form Early

<u>Period</u>	<u>Number Early</u>	<u>Total Students</u>	<u>Grade Level</u>	<u>"Moon" Fraction</u>	<u>%</u>
1	9	26	9	$\frac{9}{26} = .346$	35%
2	5	22	9	?	?
3	23	25	11	?	?
4	15	19	9	?	?
5	14	20	12	?	?
7	15	24	9	?	?

Homework: Complete the table, why does changing each fraction to a decimal, then to a percent make it easier to compare classes?
 Which class has the most initiative?
 Which 9th grade class has the most initiative?
 Which 9th grade class is second?

- If time, begin to handout books.