

BE-Alg. 1/1A MONDAY 8-11-08

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 😊

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

• Handout: "Study Guide and Intervention" Workbooks

ANSWERS

BE - Monday 8-11-08

$$\textcircled{1} \quad \frac{3}{8} \Rightarrow 8 \overline{) 3.0000}$$

$$\begin{array}{r} 0.375 \\ 8 \overline{) 3.0000} \\ \underline{-24} \\ 60 \\ \underline{-56} \\ 40 \end{array}$$

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

TERMINATING ← $\textcircled{3}$

$$\textcircled{2} \quad \frac{4}{9} \Rightarrow 9 \overline{) 4.000}$$

$$\begin{array}{r} 0.\overline{4} \\ 9 \overline{) 4.000} \\ \underline{36} \\ 40 \end{array}$$

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

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.

↑ This is what your Best Exercise should look like in your notes. After we finish going over it, your corrected BE makes a good source of items to organize 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

⊛ 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.

⊛ 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

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

$$50\% = 0.5$$

$$42\% = 0.42$$

$$3.65\% = 0.0365$$

$$110\% = 1.1$$

Find the imaginary decimal if you need to.

Number Sense:

multiply by 10 $\Rightarrow$ ADD 1 zero (EX) $24 \cdot 10 = 240$
 $8.21 \cdot 10 = 82.10$

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) $3.625 \cdot 10 = 36.25$

Homework: Organize Notes.