

BE-1A TUESDAY 9-1-09

Evaluate:

① $X = 6, \quad \frac{X+3}{(X-2)^2}$

💡 What is your friend when you substitute?

② 4^4

③ 8^2

④ $\frac{9}{100} + 7$ Express answer as a decimal

• Homework Review Pg. 13 # 10-12 (board ^{STUDENTS to})

Fraction Multiplication Rules $\frac{\text{tops times tops}}{\text{bottoms times bottoms}}$

ⓧ $\frac{1}{2} \cdot \frac{3}{4} = \frac{1 \cdot 3}{2 \cdot 4} = \boxed{\frac{3}{8}}$

ⓧ $\frac{2}{5} \cdot \frac{3}{7} = ?$

ⓧ $6 \cdot \frac{1}{3} = ?$

Anything times $\emptyset = ?$ $\emptyset$

(*)d $\Rightarrow$

Multiplication
Property of Zero

$$a \cdot 0 = 0 \quad \text{where } a \text{ is any number.}$$

Anything times 1 = ? itself

(*)d $\Rightarrow$

Identity Property
of Multiplication

$$a \cdot 1 = a$$

(Ex)

$$4 \cdot 1 = 4$$

$$1 \cdot \frac{2}{3} = \frac{2}{3}$$

$$1 \cdot 1 = 1$$

$$1 \cdot 0 = 0$$

$$0 \cdot \frac{3}{4} = 0$$

$$0 \cdot x = 0$$

$$0y = 0$$

⑧d Distributive Property } For Any numbers a, b, c
 $a(b+c) = ab+ac$

DP Technically, this is the "Distributive Property of Multiplication over Addition"

See if it is true for A simple example.

Use PE(MD)(AS) to EVALUATE $4(3+5)$
 $\Rightarrow 4(8) = \boxed{32}$

Use the DP to evaluate $4(3+5)$

⑧m USE } EACH ARROW
 ARROWS } IS ONE MULTIPLICATION
 $\Rightarrow 4(3+5)$
 $12 + 20 = \boxed{32} \checkmark$

I have shown you some MENTAL MATH tricks that make some problems easier, most of the time these tricks are based on the DP: ex) $8 \cdot 64$
 $\Rightarrow 8(60+4)$ MENTAL MATH!
 $= 480 + 32 = \boxed{512}$

Solve using the DP:

EX4
Pg 27

① 15.99

$$15(100 - 1)$$

$$15(100 - 1)$$

$$1500 - 15 = \boxed{1485}$$

② $35(2\frac{1}{5})$

$$35(2 + \frac{1}{5})$$

$$35 \cdot 2 + 35 \cdot \frac{1}{5}$$

$$70 + 7 = \boxed{77}$$

③ $(8-2)5 \Rightarrow (8-2)5$

$$= 40 - 10 = \boxed{30} \text{ Check w/ } \overrightarrow{PE(MD)} \overrightarrow{AS}$$

OR REWRITE AS $5(8-2)$

$$40 - 10 = \boxed{30}$$

Homework: Pg 29 # 4, 7, 8, 15, 18 USE DP $\overrightarrow{PE(MD)} \overrightarrow{AS}$

(OK to $\checkmark$ WITH $\overrightarrow{PE(MD)} \overrightarrow{AS}$)