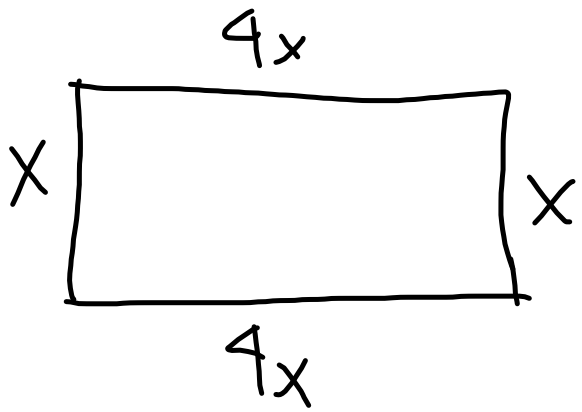
p77
18a



$P = 4x + x + 4x + x$
$= 10x$

b

$10(p) = \#$ of dimes $= 10p$

$5(7p) = \#$ of nickels $= 35p$

$10p + 35p = 45p$

p78

#19g

$$\frac{2}{5}x \div \frac{3}{1}$$

$$= \frac{2x}{5} \cdot \frac{1}{3}$$

$$= \frac{(2x)(1)}{(5)(3)}$$

$$= \frac{2x}{15}$$

19i

$$\frac{5y}{1} \div \frac{5}{12}$$

$$= \frac{5y}{1} \cdot \frac{12}{5}$$

$$= \frac{(\cancel{5}y)(12)}{(1)(\cancel{5})}$$

$$= \frac{60y}{5}$$

$$= 12y$$

13h

$$-\frac{1}{4}\left(\frac{8m}{9}\right)$$

$$= \frac{(-1)(8m)}{(4)(9)}$$

$$= \frac{-8m \div 4}{36 \div 4}$$

$$= \frac{-2m}{9}$$

Monday, Oct 5th
Test #2 - Review

FRACTIONS

addition / Subtracting

need: ① a common denom.
② add or subtract the numerators
③ do not change the CD

ex $\frac{3^{\times 5}}{4^{\times 5}} + \frac{2^{\times 4}}{5^{\times 4}}$ CD = 20

$= \frac{15}{20} + \frac{8}{20}$

$= \frac{15+8}{20}$

$= \frac{23}{20}$

$\begin{array}{r} 1 \\ 20\overline{)23} \\ -20 \\ \hline 3 \end{array}$

1 ← whole
20 ← den.
3 ← num.

$= 1\frac{3}{20}$

ex $\frac{3^{\times 5}}{4^{\times 5}} - \frac{2^{\times 4}}{5^{\times 4}}$ CD = 20

$= \frac{15}{20} - \frac{8}{20}$

$= \frac{15-8}{20}$

$= \frac{7}{20}$

Multiplication

1. multiply the numerators
2. multiply the denom.

ex $\frac{2}{3} \times \frac{1}{5}$

$= \frac{2 \times 1}{3 \times 5}$

$= \frac{2}{15}$

Division

1. Flip the 2nd fraction
2. ÷ turns into a x
3. Follow rules for x

ex $\frac{2}{3} \div \frac{7}{4}$

$= \frac{2}{3} \times \frac{4}{7}$

$= \frac{2 \times 4}{3 \times 7}$

$= \frac{8}{21}$

Integers

ex $(-4) + (-3)$

$= -7$

When the #'s have the same sign

1. Add
2. Keep the sign

ex $-7 + 4$

$= -3$

When the #'s have different signs

1. subtract
2. take the sign of the bigger #

ex $-7 - 3$

$= -7 + -3$

$= -10$

With a subtraction, we add the opposite and follow rules from above.

Monomials

Adding & subtracting →

① Like terms (same variable, same exponent)

② Add or subtract the coefficient

ex $3x + 4x^2 + 3y + 2x + 3y$

$= 5x + 4x^2 + 6y$

ex $5xy - 3xy - x^2y^2$

$= 2xy - x^2y^2$

Multiplying Monomials

NO LIKE TERMS NEEDED

1. multiply the coefficients
2. if we have the <u>same</u> variable we add the exponent

<u>ex</u> $3x \cdot x$

$= 3x^1 \cdot 1x^1$

$= (3 \cdot 1)x^{1+1}$

$= 3x^2$

<u>ex</u> $4(3x)$

$= 12x$

<u>ex</u> $(2x^1)(3x^3)(4x^2)$

$= 24x^6$