

Review

Algebra - "Solving For X"

- 1) circle terms [separated by +/- signs]
- 2) start w/ +/- terms (near X); do opposite
- 3) next +/- terms (w/ X-term); do opposite
- 4) Check your Answer!!! (replace variable w/ answer)  
check 4 true statement

Ex  $\frac{x}{6} + 5 = 12$

$\frac{(42)}{6} + 5 = 12$

$7 + 5 = 12$

$12 = 12$  ✓

$\frac{x}{6} = 7 \cdot 6$

$x = 42$

$7 = 7$  ✓

New Distributive Property! Super Important ^\_^

$3 \times 6 \rightarrow 3 \cdot (4+2) \rightarrow (3 \cdot 4) + (3 \cdot 2) = 18$

$12 + 6$

$3 \begin{array}{|c|c|c|c|} \hline & 4 & & 2 \\ \hline & 12 & & 6 \\ \hline \end{array} = 18$

Ex 1  $7 \times 15 \rightarrow 7(10+5)$

$70 + 35$

$105$

Ex 2  $20(b+c)$

$20b + 20c$

$20 \overline{) 20b + 20c}$

$20b + 20c$

\* multiply everything on the inside of the brackets by everything on the outside of the brackets! \*

Ex 1 Write the expression as a sum of terms

a)  $7(c+2)$   
 $7c+14$

$$\begin{array}{r} c \quad +2 \\ 7 \overline{) 7c + 14} \\ \underline{7c + 14} \end{array}$$

b)  $4z(a+b)$   
 $4za + 4zb$

$$\begin{array}{r} a \quad +b \\ 4z \overline{) 4za + 4zb} \\ \underline{4za + 4zb} \end{array}$$

Ex 2: Expand

a)  $-3(x+5)$   
 $-3x-15$

$$\begin{array}{r} x \quad +5 \\ -3 \overline{) -3x - 15} \\ \underline{-3x - 15} \end{array}$$

b)  $-4(-5+a)$   
 $20-4a$

$$\begin{array}{r} -5 \quad +a \\ -4 \overline{) 20 - 4a} \\ \underline{20 - 4a} \end{array}$$

Ex 3: Expand

a)  $6(x-3)$

b)  $5(8-c)$

HW

A  
7, 8

B  
11, 12, 13

C  
14, 15, 16

7a  $z(x+10) \rightarrow z x + z 0$   
 $= \boxed{z x + z 0} \checkmark$