

## October 6, 2006 Algebra Regular Contest

Combine like terms:  $\cancel{-3a} + \cancel{5b} - \cancel{4a} + \cancel{6b} + 2ab + \cancel{7a^2} - 8$

$$\underline{\underline{7a^2 - 7a + 2ab + 11b - 8}}$$

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$$\begin{array}{r} 3x + 18 = 5x - 20 \\ -18 \quad -18 \\ \hline \end{array}$$

$$\begin{array}{r} 3x = 5x - 38 \\ -5x \quad -5x \\ \hline \end{array}$$

$$\begin{array}{r} -2x = -38 \\ \hline -2 \quad -2 \\ \hline \end{array}$$

$$\underline{\underline{x = 19}}$$

$$\textcircled{19} \quad 3(x+6) = 5(x-4)$$

$$3(x) + 3(6) = 5(x) - 5(4)$$

$$3x + 18 = 5x - 20$$

$$\begin{array}{r} -3x \qquad \qquad -3x \\ \hline \end{array}$$

$$\begin{array}{r} 18 = 2x - 20 \\ +20 \qquad \qquad +20 \\ \hline \end{array}$$

$$\begin{array}{r} 38 = 2x \\ \hline 2 \qquad \qquad 2 \end{array}$$

$$\underline{\underline{19 = x}}$$

### 3. > Formulas

Oct. 17, 2006

\* Taking equations with more than 1 variable & solving for a special variable

Celsius vs. Fahrenheit  
Get 'F' by itself

$$\frac{9}{5}C = \frac{9}{5}(F - 32)$$

Side Bar

$$\frac{9}{5}C = \frac{9}{5}(F - 32)$$

3 · C = 3C

$$\frac{9}{5}C = F - 32$$

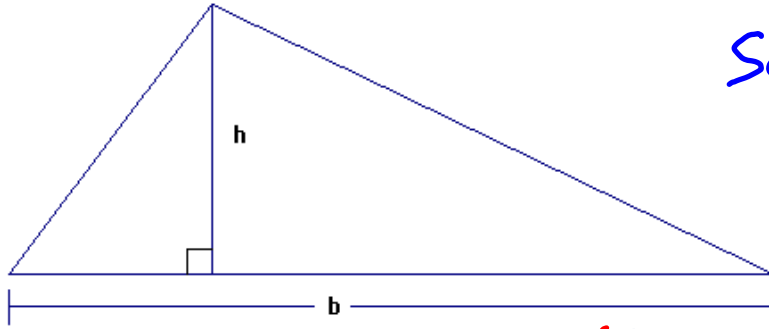
+32            +32

$$\frac{9}{5}C + 32 = F$$

$$C = \frac{5}{9}(F - 32)$$

Same

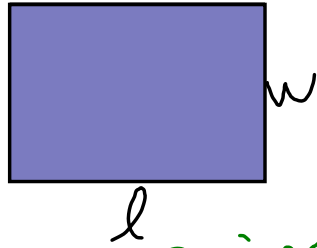
The Formula for the  
Area of a  $\Delta$  is:  $A = \frac{1}{2} b \cdot h$   
solve for 'b'



$$2 \cdot A = 2 \left( \frac{1}{2} b \cdot h \right)$$

$$\frac{2A}{h} = \frac{b \cdot h}{h}$$

$$\underline{\underline{\frac{2A}{h} = b}}}$$



The Formula for the Area of a Rectangle is:

Solve for 'l'  $A = l \cdot w$

$$\frac{A}{w} = l$$

Use the Formula above to find 'l' if the Area is  $35 \text{ ft}^2$  and the  $w = 7 \text{ ft}$

$$\frac{A}{w} = l$$

$$\frac{35 \text{ ft}^2}{7 \text{ ft}} = l$$

$$\frac{35 \cdot \text{ft} \cdot \text{ft}}{7 \text{ ft}} = l$$

$$\underline{\underline{5 \text{ ft} = l}}$$

Density :  $d = \frac{m}{V}$

Solve for 'm'

$$V \cdot d = \frac{m}{V} \cdot V$$

$$\underline{\underline{V \cdot d = m}}$$

O.T.L.

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