P B1 (pg 1 of 2) **Solving Literal Equations -** ***Dusting off your algebra skills*** Name_____Per___

Solving literal equations uses the same algebra rules that you already know and love. However instead of solving for specific x or y values, when solving a literal equation, you are simply rearranging variables into a more convenient form so that you can plug in values for the variables at a later time. I think your math teacher would have called this "isolating" for a particular variable.

When solving, please do NOT leave fractions in fractions.

1. Solve for y $4y+2=12x$

2. Solve for m $y=mx+b$

3. Solve for L $V=LWH$

4. Solve for B $V=\frac{1}{3}Bh$

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

6. Solve for K $C=K+273$

7. Solve for m $D=\frac{m}{V}$

8. Solve for V $D=\frac{m}{V}$

9. Solve for T_1 $\frac{P_1V_1}{T_1}=\frac{P_2V_2}{T_2}$

10. Solve for r $V=\pi r^2 h$

11. Solve for n $PV=nRT$

12. Substitute $\frac{m}{MM}$ for n into $PV=nRT$, then solve for MM

 Solving Literal Equations - ***Dusting off your algebra skills*** ***ANSWERS***

When solving, please do NOT leave fractions within fractions.

13. Solve for *y* $4y+2=12x$ thus $y=\dfrac{12x-2}{4}$

14. Solve for *m* $y=mx+b$ thus $m=\dfrac{y-b}{x}$

15. Solve for *L* $V=LWH$ thus $L=\dfrac{V}{WH}$

16. Solve for *B* $V=\frac{1}{3}Bh$ thus $B=\dfrac{3V}{h}$

17. Solve for *F* $C=\frac{5}{9}(F-32)$ thus $F=\dfrac{9C}{5}+32$

18. Solve for *K* $C=K+273$ thus $K=C-273$

19. Solve for *m* $D=\dfrac{m}{V}$ thus $m=DV$

20. Solve for *V* $D=\dfrac{m}{V}$ thus $V=\dfrac{m}{D}$

21. Solve for T_1 $\dfrac{P_1V_1}{T_1}=\dfrac{P_2V_2}{T_2}$ thus $T_1=\dfrac{P_1V_1T_2}{P_2V_2}$

22. Solve for r $V=\pi r^2h$ thus $r=\sqrt{\dfrac{V}{\pi h}}$ *OR* $\left(\dfrac{V}{\pi h}\right)^{\frac{1}{2}}$

23. Solve for *n* $PV=nRT$ thus $n=\dfrac{PV}{RT}$

24. Substitute $\frac{m}{MM}$ for n into $PV=nRT$, then solve for *MM*

thus $PV=\dfrac{m}{MM}RT$ *then* $MM=\dfrac{mRT}{MM}$