

CHAPTER 3	Solving Equations Answer Key	BLM 3.0.3A
ANSWER KEY		

Original Equation	Show Work	Final Equation
e.g. $\frac{AB}{C} = \frac{DE}{F}$	$F \cdot \frac{AB}{C} = \cancel{F} \cdot \frac{DE}{\cancel{F}}$ $\frac{FAB}{C} = DE$ $\frac{\cancel{F} \cancel{AB} \cdot \cancel{C}}{\cancel{C} \cdot \cancel{AB}} = DE \cdot \frac{C}{AB}$	$F = \frac{CDE}{AB}$
$AB = C$	$\frac{\cancel{AB}}{\cancel{A}} = \frac{C}{A}$	$B = \frac{C}{A}$
$\frac{A}{B} = \frac{C}{D}$	$\frac{A}{B} \cdot D = \frac{C}{\cancel{D}} \cdot \cancel{D}$	$C = \frac{AD}{B}$
$\frac{A}{B} = \frac{C}{D}$	$\frac{A}{B} \cdot D = \frac{C}{\cancel{D}} \cdot \cancel{D}$ $\frac{\cancel{A}}{\cancel{B}} \cdot \frac{\cancel{B}}{\cancel{A}} \cdot D = C \cdot \frac{B}{A}$	$D = \frac{CB}{A}$
$\frac{AB}{C} = XYZ$	$\frac{AB}{\cancel{C}} \cdot \cancel{C} = XYZ \cdot C$ $\frac{AB}{XYZ} = \frac{\cancel{XYZ} \cdot C}{\cancel{XYZ}}$	$C = \frac{AB}{XYZ}$
$PV = nRT$	$\frac{PV}{nT} = \frac{\cancel{nRT}}{\cancel{nT}}$	$R = \frac{PV}{nT}$
$\frac{P_i V_i}{T_i} = \frac{P_f V_f}{T_f}$	$\frac{P_i V_i}{T_i} \cdot T_f = \frac{P_f V_f}{\cancel{T_f}} \cdot \cancel{T_f}$ $\frac{P_i V_i T_f}{T_i} \cdot \frac{1}{P_f} = \frac{\cancel{P_f} V_f}{\cancel{P_f}}$	$V_f = \frac{P_i V_i T_f}{T_i P_f}$
$\frac{P_i V_i}{T_i} = \frac{P_f V_f}{T_f}$	$\frac{P_i V_i}{T_i} \cdot T_f = \frac{P_f V_f}{\cancel{T_f}} \cdot \cancel{T_f}$ $\frac{\cancel{P_i} V_i}{\cancel{T_i}} \cdot \frac{\cancel{T_i}}{\cancel{P_i} V_i} \cdot T_f = P_f V_f \cdot \frac{T_i}{P_i V_i}$	$T_f = \frac{P_f V_f T_i}{P_i V_i}$