

D.A of Derived/Double Units

$m$   $yd$   $mg$   $sec$   
 single units

$\frac{mi}{hr}$   $\frac{g}{mL}$   $\frac{\$}{lb}$   $\frac{g}{mol}$   
 double/derived units

Convert 1 thing

double/derived units

$20mi \rightarrow ft$

$20\frac{mi}{hr} \rightarrow \frac{ft}{min}$

convert 2 things:

① unit on top

② unit on bottom

$20 \frac{mi}{hr} \rightarrow \frac{ft}{min}$

pathway:

$mi \rightarrow ft$

$hr \rightarrow min$

<del>20 mi</del>	<del>5280 ft</del>	<del>1 hr</del>
<del>1 hr</del>	<del>1 mi</del>	<del>60 min</del>

=  $1760 \text{ ft/min}$

Just means I'm switching to convert the bottom unit

$8000 \frac{in}{sec} \rightarrow \frac{mi}{hr}$

pathway:

$in \rightarrow ft \rightarrow mi$

$sec \rightarrow min \rightarrow hr$

<del>8000 in</del>	<del>1 ft</del>	<del>1 mi</del>	<del>60 sec</del>	<del>60 min</del>
<del>sec</del>	<del>12 in</del>	<del>5280 ft</del>	<del>1 min</del>	<del>1 hr</del>

=  $454.5 \text{ mi/hr}$

$17 \frac{gal}{wk} \rightarrow \frac{cups}{min}$

pathway:

$gal \rightarrow qt \rightarrow cups$

$wk \rightarrow d \rightarrow hr \rightarrow min$

<del>17 gal</del>	<del>4 qt</del>	<del>4 cups</del>	<del>1 wk</del>	<del>1 d</del>	<del>1 hr</del>
<del>wk</del>	<del>1 gal</del>	<del>1 qt</del>	<del>7 d</del>	<del>24 hr</del>	<del>60 min</del>

=  $0.027 \frac{cups}{min}$