

Double Unit Dimensional Analysis

SOLVE ALL USING DIMENSIONAL ANALYSIS!

Some starting values are in italics as a hint.

- 1) How many kilometers per hour are equivalent to 1.45×10^7 millimeters per minute?

1.45×10^7 mm	1 m	1 km	min	=	km
1 min	1000 mm	1000 m	1 hr		hr

- 2) How many inches per day are equivalent to 45.7 feet per second?

ft	in	sec	min	hr	=	in
1 sec	ft	min				day

- 3) If you work 40 hours per week, and make \$15 per hour, how many dollars per year do you earn?

40 hr	\$	wk	=	\$
1 wk	1 hr	day	yr	yr

- 4) Light travels at a speed of 186,000 mi/sec. How many km/hr does it travel?

186,000			=	
1				hr

- 5) A car travels 42.00 miles on a gallon of gasoline. How many km/L is this?

- 6) There are 6.02×10^{23} atoms of carbon per 12 grams. How many atoms of carbon per pound are there?

- 7) Bathtubs can drain 6 gallons per minute. How fast do they drain in oz per second?

Double Unit Dimensional Analysis

SOLVE ALL USING DIMENSIONAL ANALYSIS!

Some starting values are in italics as a hint.

- 1) How many kilometers per hour are equivalent to 1.45×10^7 millimeters per minute?

1.45×10^7 mm	1 m	1 km	min	=	km
1 min	1000 mm	1000 m	1 hr		hr

- 2) How many inches per day are equivalent to 45.7 feet per second?

ft	in	sec	min	hr	=	in
1 sec	ft	min				day

- 3) If you work 40 hours per week, and make \$15 per hour, how many dollars per year do you earn?

40 hr	\$	wk	=	\$
1 wk	1 hr	day	yr	yr

- 4) Light travels at a speed of 186,000 mi/sec. How many km/hr does it travel?

186,000			=	
1				hr

- 5) A car travels 42.00 miles on a gallon of gasoline. How many km/L is this?

- 6) There are 6.02×10^{23} atoms of carbon per 12 grams. How many atoms of carbon per pound are there?

- 7) Bathtubs can drain 6 gallons per minute. How fast do they drain in oz per second?