

Do Now: Copy this into your notes section.

Unit Analysis

Words: A conversion factor that converts a given measurement to different units.

Example: 1 foot = 12 inches
 1 yard = 3 feet
 1 yard = 36 inches

Sep 27-7:27 AM

2.1 Properties and Operations (continued)

7.NS
7.EE

- SWBAT convert unit measurements.
- SWBAT create, evaluate, and simplify algebraic expressions involving variables and unit conversions.

Calculators: No

Sep 18-9:34 AM

Unit Analysis

Words: A conversion factor that converts a given measurement to different units.

Example: 1 gallon = 4 quarts
 1 gallon = 16 ounces
 1 quart = 4 ounces

$\frac{4 \text{ quarts} = 16 \text{ ounces}}{4 \quad 4}$
 1 quart = 4 ounces

Sep 27-8:05 AM

The Steel Dragon 2000 is the world's longest roller coaster. Its length is 2711 yards. How long is the roller coaster in feet?

Factor 1: $\frac{1 \text{ yard}}{3 \text{ feet}}$ Factor 2: $\frac{3 \text{ feet}}{1 \text{ yard}}$

$2711 \text{ yards} \cdot \frac{3 \text{ feet}}{1 \text{ yard}} = \frac{8,133 \text{ feet}}{1}$

$\begin{array}{r} 2711 \\ \times 3 \\ \hline 8133 \end{array}$

Sep 22-8:39 AM

The Boston Marathon is 26.2 miles long. How long is the marathon in feet?

Factor 1: $\frac{1 \text{ mile}}{5,280 \text{ ft}}$ Factor 2: $\frac{5,280 \text{ ft}}{1 \text{ mile}}$

$26.2 \text{ miles} \cdot \frac{5,280 \text{ ft}}{1 \text{ mile}} = \frac{138,336 \text{ feet}}{1}$

Sep 22-8:39 AM

How do you convert from one metric unit to another?

By multiplying or dividing by factors of 10.

This can easily be done by moving the decimal to the right when multiplying and moving the decimal to the left when dividing.

The mnemonic below is also very helpful.

K	H	D	B (meter)	d	c	m
			(gram)			
			(liter)			

Sep 21-12:13 PM

How do you convert from one metric unit to another?
 By moving the decimal point to the right or to the left.

Kilo	Hecto	Deca	Base	deci	centi	milli
K	H	D	B (meter) (gram) (liter)	d	c	m

1,000 100 10 1.0 0.1 0.01 0.001

Sep 23-7:12 AM

King Henry Died By drinking chocolate milk

i e e a e e
 \ c c a s c e
 0 t o

Sep 23-11:31 AM

Use a conversion factor to perform the indicated conversion.

1. 400 centimeters to meters.

Base
 K H D B d c m
 4 40 400

4 meters

2. 11 kilograms to milligrams.

K H D B d c m
 11 110 1100 11000 110000 1100000 11000000

11,000,000 mg

Sep 21-12:20 PM

3. 8.25 hectaliters to liters.

K H D B d c m
 e c a (meter) e c
 (liter) i
 (gram)

825 l

0.72l 7.2l 72.1

4. 72.1 decimeters to decameters.

0.72l Dm


Sep 23-7:06 AM

Exit Pass 2.1

Describe and correct the error in converting 80 ounces to pounds.

80 ounces = $\frac{80 \text{ ounces}}{1} \cdot \frac{16 \text{ ounces}}{1 \text{ pound}} = 1,280 \text{ pounds}$

$\frac{80 \text{ ounces}}{1} \cdot \frac{1 \text{ pound}}{16 \text{ ounces}} = 5 \text{ pounds}$




Sep 18-8:54 AM

Bonus Pass 2.1

Are putting on your socks and putting on your shoes commutative activities? Explain.

1st 2nd
 Socks → Shoes
 1st 2nd
 Shoes → Socks

(No)



Sep 21-12:08 PM

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the classwork.

Worksheet 2.1 (Back page)



Sep 18-8:53 AM

Reflection of Today's Lesson

2.1 Properties and Operations

7.NS
7.EE

- SWBAT add and multiply integers using properties.
- SWBAT create, evaluate, and simplify algebraic expressions involving variables.

Sep 22-8:36 AM

Homework

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Sep 18-8:54 AM