


MasterMath
Number Sense
CONVERTING UNITS OF MEASURE




Converting Units of Measure



12 eggs or 1 dozen eggs?

12 eggs = 1 dozen eggs
12 eggs per 1 dozen eggs
 $\frac{12 \text{ eggs}}{1 \text{ dozen eggs}}$

Converting Units of Measure



12 eggs = 1 dozen eggs
 $2 \times 12 \text{ eggs} = 2 \times 1 \text{ dozen eggs}$
24 eggs = 2 dozen eggs

$$\frac{12}{1} = \frac{x}{2}$$
$$\frac{2 \cdot 12}{1} = \frac{2x}{2}$$
$$24 = x$$

Converting Units of Measure

1 meter

1 foot

1 foot = 0.305 meter

16 feet = z meters

$$\frac{.305}{1} = \frac{z}{16}$$

$$16 * 1 = 16 * .305$$

$$16' = 4.88 \text{ meters}$$

$$\frac{16 * .305}{1} = \frac{16 * z}{16}$$

$$4.88 = z$$

Converting Units of Measure

Your Japanese car gets 9.35 km/l.
What MPG would you expect?

9.35 km
1 liter

1 km = 0.62 miles

9.35 km \rightarrow 9.35 x 0.62 = 5.8 miles

1 liter = 0.264 gallons

$$\frac{5.8 \text{ miles}}{.264 \text{ gallons}} = 22 \text{ MPG}$$

Converting Units of Measure

One Last Thing To Remember:

When you are converting from a squared number, like sq. ft., the conversion factor has to be squared.

When you are converting from a cubed number, like cu. ft., the conversion factor has to be cubed.

1 foot = 0.305 meters
12 feet = 12 x 0.305 meters = 3.66 meters

Area = 12 sq. ft. = (.305² x 12) sq. meters = 1.12 sq. meters

Volume = 12 cu. ft. = (.305³ x 12) cu. meters = .34 cu. meters

Converting Units of Measure

You try it!

28 lbs. = z kg
(1 lb. = .454 kg)



Converting Units of M

You try it!

28 lbs. = z kg
(1 lb. = .454 kg)

1 lb. x 28 = .454 kg x 28
28 lbs = 12.71 kg

Converting Units of M

You try it!

A soccer field is 120 meters long. A football field is 100 yards long. Which is longer?
(1' = .305 m)

Converting Units of M

You try it!

A soccer field is 120 meters long. A football field is 100 yards long. Which is longer?

(1' = .305 m)

1 foot = .305 meters

3 x 1 foot = 1 yard

1 yard = 3 x .305 meters = .915 meters

1 yard = .915 meters

100 yards = 100 x .915 meters = 91.5 meters

Converting Units of Measure

You try it!

Now, try it on your own. Go to
www.MasterMath.info
download
Converting Units of Measure
from the Worksheets Page, and test
your skill.

Converting Units of Measure
