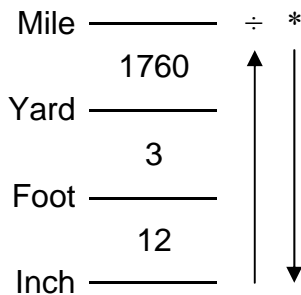Name_____

Reteaching Page
8.3 – Proportions and Customary Measurement

In 5th grade you were given 2 weeks to work with and memorize your **native system of measurement**. Sadly around 40% of the 5th graders **failed** to do so! As you can see by browsing your text, the 6th grade objectives assume that you memorized the customary measurement system last year and you are given no time to do so now. The measurement system isn't going away – so do what you have to do and become a master!
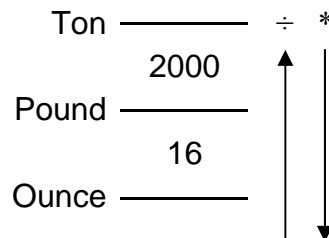
Use the activities @ Math6.org to help you memorize the measurement ladders or copy them 5 times each for 5 days (like your parents and teachers did when they were kids). Either way – you will not have to be like other kids and fail your **native system of measurement**.
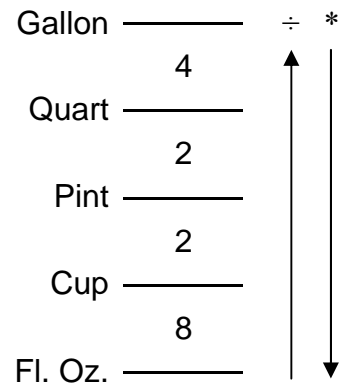
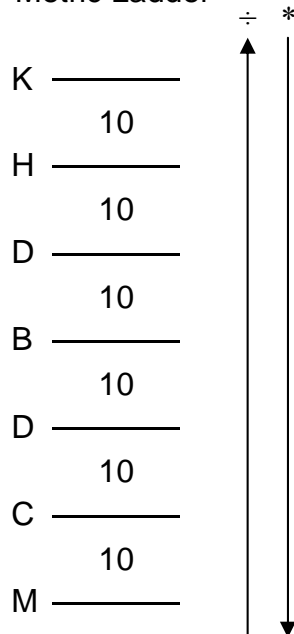Here are the measurement ladders –

Customary Length

Mile ——— ÷ *
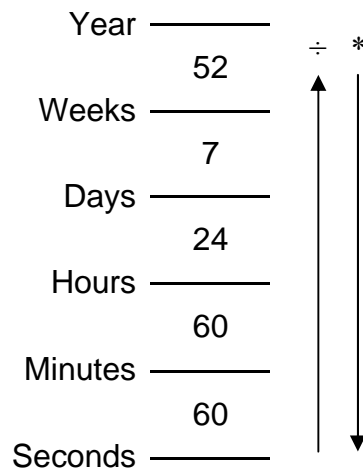1760
Yard ———
3
Foot ———
12
Inch ———

Customary Weight

Ton ——— ÷ *
2000
Pound ———
16
Ounce ———

Customary Capacity

Gallon ——— ÷ *
4
Quart ———
2
Pint ———
2
Cup ———
8
Fl. Oz. ———

Metric Ladder

÷ *

K ———
10
H ———
10
D ———
10
B ———
10
D ———
10
C ———
10
M ———

Time

Year ———
52
Weeks ———
7
Days ———
24
Hours ———
60
Minutes ———
60
Seconds ———

÷ *

Required Additional Data
365 Days in a year
12 Months in a year
1 in ≈ 2.5 cm
1 qt ≈ 0.95 L
1 oz ≈ 28 g

Extra (student requested)

1 Kilogram ≈ 2.5 pounds
Celsius * 9/5 + 32 ≈ Fahrenheit

$$\frac{8 \text{ Kilometers}}{5 \text{ Miles}}$$

Name_____

Reteaching Page
8.3 – Proportions and Customary Measurement

To find out how many minutes are in 4 days you set up a proportion.

$$\frac{minutes}{1\ day} = \frac{minutes}{4\ days}$$

Use the ladder to figure out the number of minutes in one day.
You are going up the ladder so you will multiply.
60 minutes * 24 hours = 1440 minutes in 1 day

$$\frac{1440}{1} = \frac{n}{4}$$

Now use the "Stoney Method" to find the missing value (minutes in 4 days)
1440 * 4 = 5760 ÷ 1 = 5760 minutes in 4 days.

To find out how many pounds are in 112 ounces.

$$\frac{1\ pound}{ounces} = \frac{pound}{112}$$

Use the ladder to figure out the number of ounces in one pound.
You are only moving up one step and you pass 16 so the answer is 16.

$$\frac{1}{16} = \frac{n}{112}$$

Now use the "Stoney Method" to find the missing value (pounds in 112 ounces)
112 * 1 = 112 ÷ 16 = 7 pounds is 112 ounces.

To find out how many feet are in 3 miles.

$$\frac{feet}{1\ mile} = \frac{feet}{3\ miles}$$

Use the ladder to figure out the number of feet in one mile.
You are only moving up so 3 * 1760 = 5280 feet in one mile.

$$\frac{5280}{1} = \frac{n}{3}$$

Now use the "Stoney Method" to find the missing value (feet in 3 miles)
5280 * 3 = 15,840 ÷ 1 = 15,840 feet in 3 miles.

Reading about Grizzly Bears the document said that they can weigh as much as 0.425 tons. Unfortunately that isn't very helpful as we don't usually think about partial tons and haven't any comparison to help us understand how much the bear weighs. Let's change 0.425 tons into pounds and we will have a better idea of the weight of a Grizzly Bear.

$$\frac{pounds}{1\ ton} = \frac{pounds}{0.425\ ton}$$

Use the ladder to figure out the number of pounds in one ton.

You move up one step and you pass _____ so the answer is _____.

$$\frac{}{1} = \frac{n}{0.425}$$

Now use the "Stoney Method" to find the missing value (pounds in 0.425 tons)

0.425 * _____ = _____ ÷ 1 = _____ pounds in 0.425 tons.

A grizzly bear can weigh up to _____ pounds!