USMA
U.S. Metric Association

DECIMAL NATURE OF THE METRIC SYSTEM

1795-1995 Bicentenary of the Decimal Metric System

On 7 April 1795 the National Convention of France decreed the new "Republican Measures" to be legal measures in France. The units of measurement included the meter, are, liter, and gram; and the prefixes centi, deci, deca, hecto, and kilo. This was the decimal system of measurement units or the decimal metric system that has survived practically unchanged as the basis of the modern *International System of Units*, or SI for short.

"A TOUS LES TEMPS; A TOUS LES PEUPLES"
["FOR ALL TIME; FOR ALL PEOPLES"]

Take the following tests to see why the decimal system is simpler:

Why Decimal?
Question: *Which column* would you rather add?

Inch-pound units	Metric units
1 yard, 2 feet, 3-1/4 inches	1.607 meters
1 foot, 11-3/16 inches	0.589 meters
2 feet, 5-1/2 inches	0.749 meters
3 yards, 1 foot, 6-5/8 inches	3.216 meters
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? yards, ? feet, ? inches	? meters

Hint: The two sums are the same.
Answer: 6 yards, 2 feet, 2-9/16 inches; or 6.161 meters

Why Decimal?
A room measures 15 ft. 3-3/4 in. by 21 ft. 7-1/2 in. (4.667 m by 6.591 m).
Questions:
What is its floor area in *square yards*?
What is its floor area in *square meters*?
Answers:
36.79 sq. yd., or 30.76 m^2

Why Decimal?
In designing a calendar you wish to divide an area of 7-1/4 in. by 11 in. (184 mm by 279 mm) into 35 rectangles; that is you wish to divide 7-1/4 in. by 5 and to divide 11 in. by 7.
Questions:
What are the dimensions of each rectangle in *inches*?
What are the dimensions of each rectangle in *millimeters*?
Answers:
1-29/64 in. by 1-37/64 in., or 36.8 mm by 39.9 mm

The above information was compiled by the late **Joseph B. Reid, President Emeritus, Canadian Metric Association**.