

Document ID: 03_08_01_1

Date Received: 2001-03-08 **Date Revised:** 2001-06-15 **Date Accepted:** 2001-06-18

Curriculum Topic Benchmarks: M2.2.1, M2.2.2, M2.2.4, M2.2.4, M2.2.5, M2.2.10, M2.3.4, M2.3.10, M2.3.11, M3.2.1 M3.2.6, M3.3.1, M4.2.10, M4.2.16, M4.3.3, M4.3.43

Grade Level: [3-5] Upper Elementary

Subject Keywords: metric system, inch-pound system, units, conversion of units

Rating: Moderate

Metric Wins!

By: Joseph B Reid, retired, was at Université du Québec, 17 Glebe Road West, Toronto
ON M5P 1V8 e-mail: joereid@total.net

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There have been many metric systems, or systems of measurement. On 7 April 1795 the National Convention of France decreed new “Republican Measures” to be legal measures in France. The units of measurement included the meter, liter, and gram; the prefixes centi, deci, deca, hecto, and kilo were also sanctioned. This was the decimal system of measurement or the decimal metric system. It has survived practically unchanged and now is known simply as *the* metric system. The latest version of the system is the *International System of Units* or *SI* for short. It is used by 95% of the world’s population

“À TOUS LES TEMPS; À TOUS LES PEUPLES” (“FOR ALL TIME; FOR ALL PEOPLES”)

The decimal nature of the Metric System makes conversions among units much easier. Try the following examples to see why:

Why decimal?

Question: Which column would you rather add?

Inch-pound units	Mixed SI units	SI units
1 yd. 2 ft 3-1/4 in.	1 m 6 dm 7 mm	1.607 m
1 ft. 11-3/16 in.	5 dm 8 cm 9 mm	0.589 m
2 ft. 5-1/2 in.	7 dm 4 cm 9 mm	0.749 m
3 yd. 1 ft. 6-5/8 in.	3 m 2 dm 1 cm 6 mm	3.216 m
_____	_____	_____
? yards ? feet ? inches	? m ? dm ? cm ? mm	? meters

Hint: The three sums are the same.

Answer: 6 yd. 2 ft. 2-9/16 in.; 6 m 1 dm 6 cm 1 mm 6.161 m

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 area in *square yards* ?

What is its area in *square meters* ?

Answers:

36.79 sq. yd., or 30.76 m²

Why decimal?

In designing the page for 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 39.9mm

Why decimal?

Question 1:

How many gallons are there in an acre-foot of rainfall?

Hints: there are 640 acres in a square mile, 5280 feet in a mile, 231 cubic inches in a gallon.

Question 2:

How many liters are there in a hectare-decimeter of rainfall?

Hints: a hectare is *** square meters, a liter is 1000 cubic centimeters.

Answer 1: 325 851 gallons

Answer 2: 1 000 000 liters