GRADE 10 MATH
MA20S UNIT C
LINEAR MEASURES AND CONVERSIONS

| **Name:** _____ |
| **Date**: _____ |

LINEAR MEASUREMENTS

1. Measure the height of the ceiling from the floor:

    a. Feet [ft] and inches [in] rounded to the nearest 1/8th inch: _____

    b. Metres rounded to the nearest 0.01 m: _____

2. Measure the distance around your wrist:

    a. Inches [in *or* "] rounded to the nearest ¼

    b. Centimetres [cm] to the nearest 0.1 cm

3. Measure the distance around the rectangle at the right.

    a. Inches to the nearest 1/8th:

    _____

    b. millimetres [mm] to the nearest millimetre:

    _____

4. Measure the width of a floor tile:

    a. mm: _____

    b. cm to nearest 0.1 cm: _____

    c. Inches to nearest ¼ inch:

    _____

    d. feet and inches to the nearest inch:

    _____

CONVERSIONS

5.   Convert:

a.   5 inches [in] = _____ cm   b.   2 ft 3 in (*ie*: 2' 3") =
to the nearest 0.1 cm.   _____ cm to the
                                                          nearest 0.1 cm.

c.   25 cm of snow = _____   d.   40 cm of string = _____
in to the nearest ¼ inch   inches to the nearest $1/8^{th}$ inch

don't forget you aren't supposed to make   don't forget you aren't supposed to make
inches decimals. They are supposed to be   inches decimals
1/4ths, or 1/8ths, etc

6.   A barrel has a circumference of 1.46 meters [m]. How many inches around the barrel?
(to the nearest inch).

7.   Convert these metric units:

a.   5 km = _____ metres [m]   b.   5.2 km = _____ m

c.   6700 m = _____ km   d.   120 mm = _____ cm

e.   1340 mm = _____ m   f.   2.6 km = _____m

8. Convert these larger units. Calculate to two decimal places

a. 7.5 miles [mi] = _____km   b.   8 km = _____ mi

c. 80 km = _____miles   d.   60 mi = _____km

9. Calculate to the nearest unit:

a. 480 miles = _____ km   b.   97,000,000 miles =

_____ km

(the distance a passenger jet travels in one   (the distance to the sun)
hour)

10. Advanced questions (not marked, but try them anyway)

a. 26 millimetres = _____inches (to nearest 1/16th)

b. 1.6 miles = _____ inches
(you will need to convert the miles to feet then the feet to miles; two conversion
calculations required)

c. 10,207 feet = _____ miles. = _____ metres

d. 26 nanometres [nm] = (the size of an atomic particle!)

(1) _____ metres

(2) _____ inches (use decimal inches, allowed in this case)