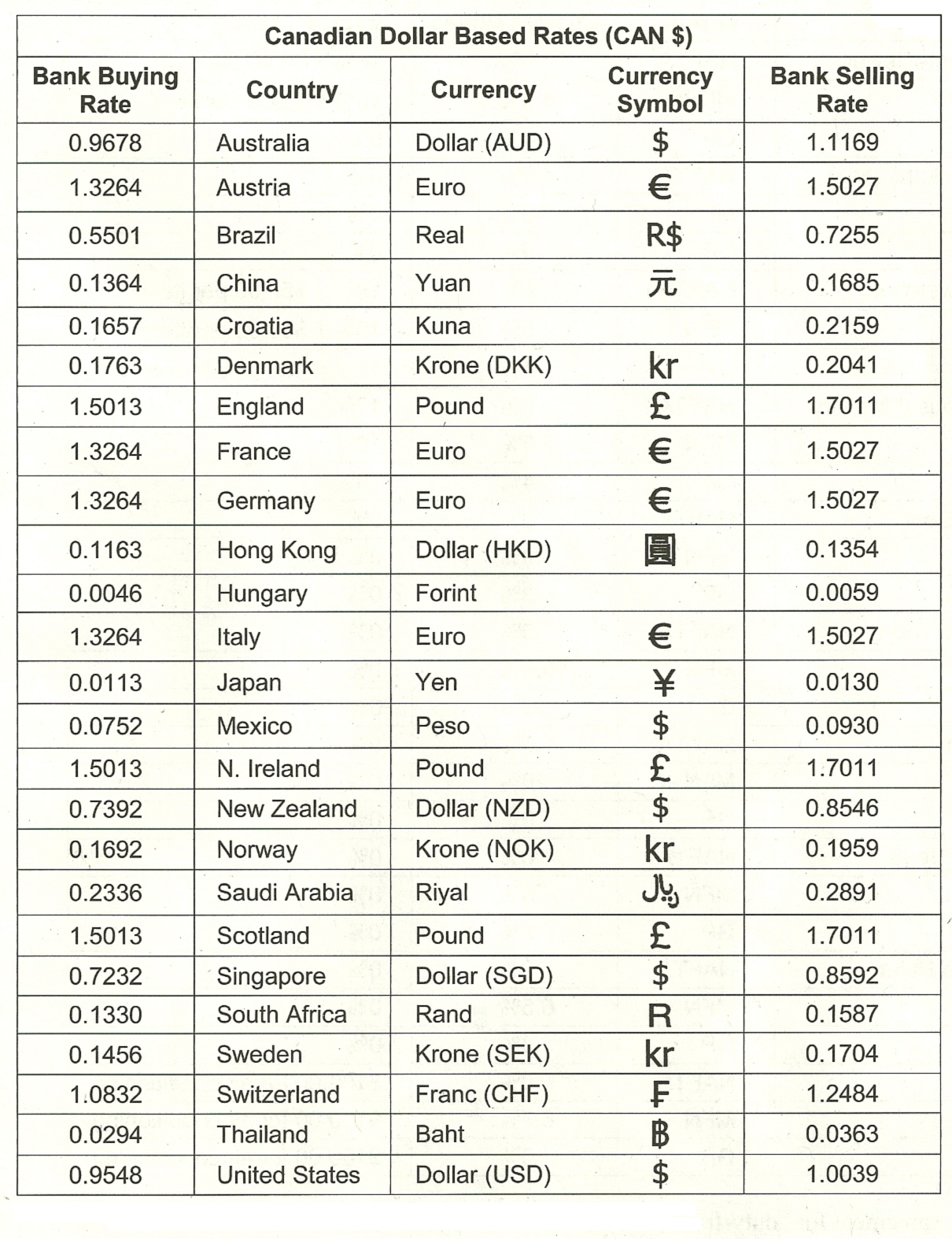
Essential Math 20S – Formula Sheet

**Part B: Unit Pricing and Currency**



**Part D: Measurement**

COOKING

|  |  |
| --- | --- |
| **Volume (Cooking)** | |
| 1 tsp | 5 ml |
| 1 tbsp | 15 ml |
| 1 cup | 250 ml |
| 4 cups | 1 litre |

|  |  |
| --- | --- |
| **Weight (Cooking)** | |
| 1 oz | 28 g |
| 1 lb | 448 g |
| 2.2 lbs | 1 kg |
| \*There are 16 oz in 1 lb. | |

Acceptable Rounding for Cooking Conversions

|  |  |
| --- | --- |
| **Decimal Value After Conversion**  \*\* | **Fractional Value Estimate** |
| 0.0 – 0.19 | 0 |
| 0.20 – 0.29 | 1/4 |
| 0.30 – 0.39 | 1/3 |
| 0.40 – 0.59 | 1/2 |
| 0.60 – 0.69 | 2/3 |
| 0.70 – 0.79 | 3/4 |
| 0.80 – 0.99 | 1 |

*\*\* If the measurement works out to be between 0.0 – 0.19, you still need to add some of this*

*item such as Salt, Baking Soda, or Baking Powder. Make the measurement a* ***Pinch*** *or* ***Dash****.*

TEMPERATURE

**Conversions within Systems**

METRIC

**X 1000**

**X 100**

**X 10**

**centimeter (cm)**

**millimeter (mm)**

**kilometer (km)**

**meter (m)**

**÷ 100**

**÷ 10**

**÷ 1000**

IMPERIAL

**X 12**

**X 1760**

**X 3**

**yard (yd)**

**mile (mi)**

**foot (ft)**

**inch (in)**

**÷ 12**

**÷ 3**

**÷ 1760**

|  |  |
| --- | --- |
| **Metric** | **Imperial** |
| *Length*  10 mm = 1 cm  100 cm = 1 m  1000 m = 1 km | *Length*  12 in = 1 ft  36 in = 3 ft = 1 yd  5 280 ft = 1 760 yd = 1 mi |
| *Area*  100 mm2 = 1 cm2  10 000 cm2 = 1 m2  1 000 000 m2 = 1 km2 | *Area*  144 in2 = 1 ft2  1 296 in2 = 9 ft2 = 1 yd2 |
| *Volume*  1 000 mm3 = 1 cm3  1 000 000 cm3 = 1 m3 | *Volume*  1 728 in3 = 1 ft3  46 656 in3 = 27 ft3 = 1 yd3 |

**Conversion between Systems**

|  |  |
| --- | --- |
| **METRIC** | **IMPERIAL** |
| *Length* | |
| 1 mm | 0.0394 in |
| 1 cm | 0.3937 in |
| 1 m | 1.0936 yd |
| 1 m | 39.37 in |
| 1 km | 0.6214 mi |
| 2.54 cm | 1 in |
| 0.3048 m | 1 ft |
| 0.9144 m | 1 yd |
| 1.6093 km | 1 mi |
| *Area* | |
| 1 cm2 | 0.1550 in2 |
| 1 m2 | 10.76391 ft2 |
| 1 m2 | 1.1960 yd2 |
| 1 km2 | 0.3861 mi2 |
| 6.4516 cm2 | 1 in2 |
| 0.0929 m2 | 1 ft2 |
| 0.8361 m2 | 1 yd2 |
| 2.59 km2 | 1 mi2 |
| *Volume* | |
| 1 cm3 | 0.0610 in3 |
| 1 m3 | 35.3147 ft3 |
| 1 m3 | 1.30795 yd3 |
| 16.4 cm3 | 1 in3 |
| 0.0283 m3 | 1 ft3 |
| 0.765 m3 | 1 yd3 |
| *Capacity* | |
| 28.41 mL | 1 oz |
| 568.26 mL | 1 pint |
| 1.1365 L | 1 quart (2 pints) |
| 4.546 L | 1 gallon (4 quarts) |
| 3.7854 L | 1 USA gallon |

**Part E: Geometry**

|  |  |  |
| --- | --- | --- |
| **GEOMETRIC FIGURE** | **PERIMETER** | **AREA** |
| SQUARE |  |  |
| RECTANGLE |  |  |
| PARALLELOGRAM |  |  |
| TRIANGLE |  |  |
| TRAPEZOID |  |  |
| CIRCLE |  |  |
| REGULAR POLYGON  n = number of sides  s = side length  a = length of apothem |  |  |

**Part G: Trigonometry**

B

\*Angles inside a triangle add up to 180°.

*c*

*a*

Pythagorean Theorem:

C

A

*b*

Trigonometric Ratios: