

**HANDOUT:** On the Job Calculations (2 pages)

Skill Builders: Conversion, Rounding, Percentages, Decimals & Fractions

**IN THE WORKPLACE:** Errors in conversion can result in significant costs to a company in lost time and product. Accurately taking, interpreting and converting measurements between imperial and metric systems are fundamental skills across the trades. Welders are one example of a trade that frequently works across both systems.

Calculate the answers to the following questions. Round all answers to 2 decimal places.

1. Substrate needs to be  $30.5 \times 38$  centimetres. How many square inches is that?
2. How many square centimetres is a  $4\text{-inch}^2$  piece of glass?
3. When making a cut, the cutter should be 0.06 inches from the edge of the glass. How many millimetres is that?
4. Calculate the area in square of centimetres of a piece of glass that measures 6 feet  $\times$  3 inches.

5. A project requires 3.5 metres of electrode wire. Calculate the length in millimetres, centimetres and inches.
6. An electrode wire stickout is  $\frac{3}{8}$  inch. Calculate the length in millimetres and centimetres.
7. Convert the following quantities to the metric measurements provided.

a) 2 lbs. of flux	kg
b) 4 quarts (US) of solution	L
c) $\frac{3}{4}$ in. pipe	cm
d) 100 lbs. of fire brick	kg
e) 18 in. welding rod	cm