

Math and the Skilled Trades

In addition to the well-known trades of plumber, electrician and carpenter, the skilled trades also include hairdresser, baker, child and youth worker, educational assistant, roofer, heavy equipment operator, machinist and drywall finisher. These are just a few of the [144 skilled trades](#) recognised in Ontario.

Although these trades are very different, they have one thing in common – they all require good math skills. Just some of the math skills needed in the trades are

- completing measurements (distance, pressure, tolerances, temperatures, volume, quantities, perimeters, etc.)
- assessing angles
- reading gauges
- understanding blueprints
- mixing chemicals
- setting prices, completing estimates and invoices
- taking orders and managing stock
- setting budgets and work schedules
- tracking statistics

Some trades need math skills that one might not expect. For a detailed list of the math skills needed in the trades, visit the foundations section of the [Trades – Math](#) document.

Trades Skills Assessment and Updating

For some apprentices and pre-apprentices, it has been a while since they were in a math class or they might find they are not familiar with everything on this list. They can contact any of Employment Ontario's [free adult upgrading programs](#) for help. These programs offer assessments to help apprentices pick the skills they need to focus on and can help them develop the core math skills needed to work in any trade. Adult upgrading programs are for people who are

- thinking about working in a trade
- working in a trade
- registered as an apprentice
- preparing for the Certificate of Qualification (CofQ) exam

For those who prefer to work on their own, the federal government has free, online resources:

- 1) a self-assessment called '[Essential Skills Self-Assessment for the Trades](#)'. The math section of this self-assessment will give you another list of the math skills needed in the trades. This assessment includes measurement (metric / imperial), dimensions (area or volume), estimates (time, distance, volume or quantity), ratios and proportions (using scale drawings) and geometry (calculate slopes or elevation).

- 2) two free workbooks online:
 - a) [The trades-math workbook](#)
 - b) [Essential Skills workbook for the trades](#)