Self-Assessment for Grade 11 Workplace Math (MEL3E)

Students who are registered for Grade 11 Workplace Math (MEL3E) may benefit from a self evaluation and review of the following expectations from earlier math courses.

The questions in this self-assessment reflect some of the key ideas learned in prerequisite courses. They do not represent the problem solving approach or the rich experience that students would be exposed to in a classroom. The intention is for students to revisit some key concepts and, if needed, access review materials in an informal environment at a pace that is comfortable for the student.

Concept(s)	Sample Question	How comfortable do you feel with this concept?	Link(s) to explore concept further
I can solve problems involving rates	1. A babysitter earns $8.50 per hour. How much will she earn in a 5-hour evening?	 ☐ **Very comfortable**  ☐ **Somewhat comfortable**  ☐ **Not at all comfortable**	Unit Rates

I can represent parts of a whole using fractions and percent	 2. For the figure above: a. What fraction is shaded? b. What percent is shaded? c. What fraction is unshaded? d. What percent is unshaded? e. What do you get when you add the shaded and unshaded fractions? f. What do you get when you add the shaded and unshaded percents?	 ☐ **Very comfortable**  ☐ **Somewhat comfortable**  ☐ **Not at all comfortable**	Representing Percents
I can calculate a percent of an amount	3. How much is 5% of 400? 4. How much does a waiter earn in tips, if they earn 10% of their table bills in tips and the bills total $450? 5. How much does a $60 jacket cost after tax? (HST is 13%)	 ☐ **Very comfortable**  ☐ **Somewhat comfortable**  ☐ **Not at all comfortable**	Solving Percent Problems

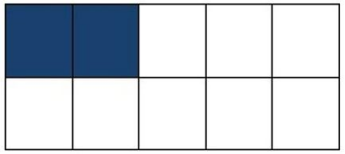
I can add and subtract simple fractions	6. Evaluate: a. $1\frac{1}{2}+2\frac{3}{4}$ b. $\frac{3}{4}-\frac{1}{2}$	 ☐ **Very comfortable**  ☐ **Somewhat comfortable**  ☐ **Not at all comfortable**	Adding Mixed Numbers

Students who take Workplace Math may find it useful to have a working knowledge of spreadsheets. The following tutorials will provide an introduction to Google Sheets.

Intro to Google Sheets: Google Sheets - Full Tutorial
Create graphs in Google Sheets: Add & Edit a Chart or Graph

Solutions to Sample Questions:

1. A babysitter earns $8.50 per hour. How much will she earn in a 5-hour evening? **$42.50**

2. 

For the figure above:

a. What fraction is shaded? $\frac{2}{10}$

b. What percent is shaded? **20% (For each 10 boxes 2 are shaded, so if there were 100 boxes, 20 would be shaded.)**

c. What fraction is unshaded? $\frac{8}{10}$

d. What percent is unshaded? **80%**

e. What do you get when you add the shaded and unshaded fractions? $\frac{2}{10} + \frac{8}{10} = \frac{10}{10} = 1$

f. What do you get when you add the shaded and unshaded percents? **20% + 80% = 100%**

3. How much is 5% of 400? **20**

Method 1: 5% is equal to 0.05. So 5% of 400 is 0.05 x 400, which is 20.

Method 2: 5% of 100 is 5, so 5% of 400 is 5 x 4, which is 20.

4. How much does a waiter earn in tips, if they earn 10% of their table bills in tips and the bills total $450? **$45**

10% of 450 is 0.10 x 450, which is $45

5. How much does a $60 jacket cost after tax? (HST is 13%) **$67.80**

13% of $60 is 0.13 x 60, which is $7.80. So the total cost is $60 + $7.80 = $67.80.

6. Evaluate:

a. $1\frac{1}{2}+2\frac{3}{4}=\frac{17}{4}$

How many fourths? $1\frac{1}{2}$ is a whole and a half, or a whole and 2 fourths. This makes 6 fourths. $2\frac{3}{4}$ is two wholes and 3 fourths. This makes 11 fourths. Adding them up gives 17 fourths, or $\frac{17}{4}$.

b. $\frac{3}{4}-\frac{1}{2}=\frac{1}{4}$