


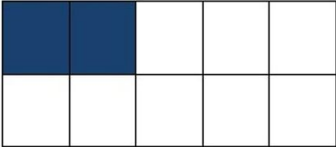











## Self-Assessment for Grade 11 Workplace Math (MEL3E)

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
<b>I can solve problems involving rates</b>	1. A babysitter earns \$8.50 per hour. How much will she earn in a 5-hour evening?	 <input type="checkbox"/> Very comfortable  <input type="checkbox"/> Somewhat comfortable  <input type="checkbox"/> Not at all comfortable	<a href="#">Unit Rates</a>
<b>I can represent parts of a whole using fractions and percent</b>	 <p>2. For the figure above:</p> <ol style="list-style-type: none"> <li>What fraction is shaded?</li> <li>What percent is shaded?</li> <li>What fraction is unshaded?</li> <li>What percent is unshaded?</li> <li>What do you get when you add the shaded and unshaded fractions?</li> <li>What do you get when you add the shaded and unshaded percents?</li> </ol>	 <input type="checkbox"/> Very comfortable  <input type="checkbox"/> Somewhat comfortable  <input type="checkbox"/> Not at all comfortable	<a href="#">Representing Percents</a>

<p><b>I can calculate a percent of an amount</b></p>	<p>3. How much is 5% of 400?</p> <p>4. How much does a waiter earn in tips, if they earn 10% of their table bills in tips and the bills total \$450?</p> <p>5. How much does a \$60 jacket cost after tax? (HST is 13%)</p>	<p>  <input type="checkbox"/> <b>Very comfortable</b> </p> <p>  <input type="checkbox"/> <b>Somewhat comfortable</b> </p> <p>  <input type="checkbox"/> <b>Not at all comfortable</b> </p>	<p><a href="#">Solving Percent Problems</a></p>
<p><b>I can add and subtract simple fractions</b></p>	<p>6. Evaluate:</p> <p>a. <math>1\frac{1}{2} + 2\frac{3}{4}</math></p> <p>b. <math>\frac{3}{4} - \frac{1}{2}</math></p>	<p>  <input type="checkbox"/> <b>Very comfortable</b> </p> <p>  <input type="checkbox"/> <b>Somewhat comfortable</b> </p> <p>  <input type="checkbox"/> <b>Not at all comfortable</b> </p>	<p><a href="#">Adding Mixed Numbers</a></p>

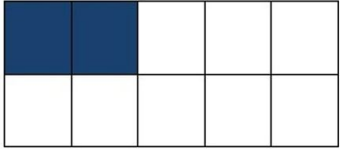
Students who take Workplace Math may find it useful to have a working knowledge of spreadsheets. The following tutorials will provide an introduction to Google Sheets.

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  $0.05 \times 400$ , which is 20.**

**Method 2: 5% of 100 is 5, so 5% of 400 is  $5 \times 4$ , 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  $0.10 \times 450$ , which is \$45**

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

**13% of \$60 is  $0.13 \times 60$ , 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.  $\frac{3}{4} - \frac{1}{2} = \frac{1}{4}$