

## OALCF Task Cover Sheet

**Task Title:** Math Measurement Test

<b>Learner Name:</b>	
<b>Date Started:</b>	<b>Date Completed:</b>
<b>Successful Completion:</b> Yes ___ No ___	
<b>Goal Path:</b> Employment <input checked="" type="checkbox"/> Apprenticeship <input checked="" type="checkbox"/> Secondary School <input checked="" type="checkbox"/> Post Secondary <input checked="" type="checkbox"/> Independence ___	
<b>Task Description:</b> In this task set, a learner is asked to complete an academic math test involving measurement and conversion (imperial to metric) as preparation for secondary school math credit course.	
<b>Competency:</b> A: Find and Use Information C: Understand and Use Numbers	<b>Task Group(s):</b> A1: Read continuous text A2: Interpret Documents C3: Use measures
<b>Level Indicators:</b> A1.1: Read brief texts to locate specific details A2.1: Interpret very simple document to locate specific details C3.1: Measure and make simple comparisons and calculations C3.2: Use measures to make one-step calculations	
<b>Performance Descriptors:</b> see chart on last page	
<b>Materials Required:</b> <ul style="list-style-type: none"><li>• Question Sheet</li><li>• Calculator</li><li>• 3 inch Bolt</li><li>• Desk or table in your classroom</li><li>• Measuring Tape (one used in sewing) with metric and imperial measurements</li><li>• Tape Measure (retractable metal one) with metric and imperial measurements</li><li>• Conversion formulas for imperial to metric measures (optional if you do not have measuring tape &amp; tape measure with both systems on each) - # of Centimetres x 0.39* = Inches and # of Inches x 2.54 = Centimetres</li></ul>	

**Instructor Preparation:** Review the Tasks on the Question Sheet. Be sure to pre-measure the desk before the learner works on the task set, so you can have the answer to help the learner prepare with skill-building activities.

**Task Title: Math Measurement Test – Converting Imperial and Metric Measures**

1. A machinist needs to measure the length of a bolt to make sure it does not show on the underside of a piece of furniture. Using the tape measure, measure the bolt provided twice, using metric and imperial.

Length of bolt = \_\_\_\_\_ (metric)

Length of bolt = \_\_\_\_\_ (imperial)

2. Measure the height, width and length of a desk in the room are currently sitting in. Using the tape measure, measure the desk twice using both forms of measurement (metric and imperial).

Length = \_\_\_\_\_ Width = \_\_\_\_\_ Height = \_\_\_\_\_ (metric)

Length = \_\_\_\_\_ Width = \_\_\_\_\_ Height = \_\_\_\_\_ (imperial)

3. Rafael is renting a pair of skis that are 209 cm long. Write the length of the skis as a decimal number of metres or as metres and centimetres.

Length in metres: \_\_\_\_\_

4. Pablo measured his ski pole to be 1.15m long. Write this length as centimetres.

Length in centimetres: \_\_\_\_\_

5. Mary is buying a gold chain. She needs to measure it to make sure it is the right length for herself (comfortable for around her neck and reaching mid-chest). Using the measuring tape, measure the length on yourself, using metric and imperial.

Length of chain = \_\_\_\_\_ (metric)

Length of chain = \_\_\_\_\_ (imperial)

6. Julio has two lengths of copper tubing. One is 6ft. 3in. long and the other is 2ft. 10 in. long. What is the combined length of the copper tubing? What would that measurement be in metric measure?

Combined Length of tubing = \_\_\_\_\_ (imperial)

Combined Length of tubing = \_\_\_\_\_ (metric)

7. Stephanie used a metric ruler to measure two tables. The larger table is 73cm 2mm wide. The smaller table is 62cm 9mm wide. Stephanie needs to fit the two tables together and wants to find the combined width of the tables. What would that measurement be in metric measure?

Width of tables = \_\_\_\_\_ (metric)

Width of tables = \_\_\_\_\_ (imperial)

**ANSWER SHEET Task Title:** Math Measurement Test – Converting Imperial and Metric Measures

1. A machinist needs to measure the length of a bolt to make sure it does not show on the underside of a piece of furniture. Measure the bolt provided twice, using metric and imperial.

Length of bolt = **7.62 cm** (metric)                      Length of bolt = **3 inches** (imperial)

2. Measure the height, width and length of the desk in your room. Once again, use both forms of measurement.

**Note to Instructor: Pre-measure a desk in the classroom to determine the correct answers. Tell the learner which desk to measure in the classroom.**

Length = \_\_\_\_\_ Width = \_\_\_\_\_ Height = \_\_\_\_\_ (metric)

Length = \_\_\_\_\_ Width = \_\_\_\_\_ Height = \_\_\_\_\_ (imperial)

3. Rafael is renting a pair of skis that are 209 cm long. How can he write this length as a decimal number of metres or as metres and centimetres?

Length in metres: **2.09 metres** or **2 metres 9 centimetres (2 m 9 cm)**

4. Pablo measured his ski pole to be 1.15m long. How does he write this length as a number of centimetres?

Length in centimetres: **115 centimetres**

5. Mary is buying a gold chain. She needs to measure it to make sure it is the right length for herself (comfortable for around her neck and reaching mid-chest). Using the measuring tape, measure the length, using metric and imperial.

**Note to Instructor: This length will vary according to the learner's size of neck and preference for necklace length.**

Length of chain = \_\_\_\_\_ (metric)                      Length of chain = \_\_\_\_\_ (imperial)

6. Julio has two lengths of copper tubing. One is 6ft. 3in. long and the other is 2ft. 10 in. long. What is the combined length of the copper tubing in inches? What would that measurement be in metric measure?

Combined Length of tubing = **109 inches** (imperial)

Decide to convert both measurements into inches.

6 ft = 72 inches + 3 inches = **75 inches**

2 ft – 24 inches + 10 inches = **34 inches**

75 inches + 34 inches = **109 inches**

Combined Length of tubing = **276.86 centimetres** (metric)

7. Stephanie used a metric ruler to measure two tables. The larger table is 73cm 2mm wide. The smaller table is 62cm 9mm wide. Stephanie needs to fit the two tables together and wants to find the combined width of the tables. What would that measurement be in metric measure?

Width of tables = **136.1 cm** (metric)

Decide to convert both measurements into mm (millimetres).

73 cm = 730 mm + 2 mm = **732 mm**

62 cm = 620 mm + 9 mm = **629 mm**

732 mm + 629 mm = **1361 mm or 136.1 cm**

Width of tables = **53.08 inches** (imperial)

Task Title: **Math Measurement Test**

Performance Descriptors		Needs Work	Completes task with support from practitioner	Completes task independently
A1.1	<ul style="list-style-type: none"> <li>reads short texts to locate a single piece of information</li> </ul>			
	<ul style="list-style-type: none"> <li>decodes words and makes meaning of sentences in a single text</li> </ul>			
	<ul style="list-style-type: none"> <li>follows the sequence of events in straightforward chronological texts</li> </ul>			
	<ul style="list-style-type: none"> <li>follow simple, straightforward instructional texts</li> </ul>			
	<ul style="list-style-type: none"> <li>identifies the main idea in brief texts</li> </ul>			
A2.1	<ul style="list-style-type: none"> <li>scans to locate specific details</li> </ul>			
	<ul style="list-style-type: none"> <li>interprets brief text and common symbols</li> </ul>			
	<ul style="list-style-type: none"> <li>locates specific details in simple documents, such as labels and signs</li> </ul>			
	<ul style="list-style-type: none"> <li>identifies how lists are organized (e.g. sequential, chronological, alphabetical)</li> </ul>			
	<ul style="list-style-type: none"> <li>requires support to identify sources and to evaluate and integrate information</li> </ul>			
C 3.1	<ul style="list-style-type: none"> <li>Adds, subtracts whole numbers measurements</li> </ul>			
	<ul style="list-style-type: none"> <li>Recognizes values in number and word format</li> </ul>			
	<ul style="list-style-type: none"> <li>Understands numerical order</li> </ul>			
	<ul style="list-style-type: none"> <li>Makes simple estimates</li> </ul>			
	<ul style="list-style-type: none"> <li>Chooses appropriate units</li> </ul>			
	<ul style="list-style-type: none"> <li>Identifies and performs required operation</li> </ul>			
	<ul style="list-style-type: none"> <li>Interprets and represents measures using whole numbers, decimals and simple, common fractions</li> </ul>			
	<ul style="list-style-type: none"> <li>Follows apparent steps to reach solutions</li> </ul>			

	<ul style="list-style-type: none"> <li>• Rounds to the nearest whole unit</li> </ul>			
	<ul style="list-style-type: none"> <li>• Uses strategies to check accuracy</li> </ul>			
C3.2	<ul style="list-style-type: none"> <li>• Calculates using numbers expressed as whole numbers, fractions, decimals, percentages and integers</li> </ul>			
	<ul style="list-style-type: none"> <li>• Makes estimates</li> </ul>			
	<ul style="list-style-type: none"> <li>• Understands ration and proportion</li> </ul>			
	<ul style="list-style-type: none"> <li>• Converts units of measurement within the same system and between systems</li> </ul>			
	<ul style="list-style-type: none"> <li>• Chooses and performs required operations, may make inferences to identify required operations</li> </ul>			
	<ul style="list-style-type: none"> <li>• Selects appropriate steps to solutions</li> </ul>			
	<ul style="list-style-type: none"> <li>• Interprets, represents and converts measures using whole numbers, decimals, percentages, ratios and simple, common fractions</li> </ul>			
	<ul style="list-style-type: none"> <li>• Uses strategies to check</li> </ul>			

**This task:** was successfully completed \_\_\_ needs to be tried again \_\_\_

<b>Learner Comments</b>

\_\_\_\_\_  
Instructor (print)

\_\_\_\_\_  
Learner Signature