

Assessment Tool

AURAF2001 Use numbers in an automotive workplace

Purpose of Assessment: This assessment tool assess the performance outcomes required to make simple calculations and numerical estimations relating to vehicle inspection, service and repairs, parts and labour quotations and preparatory calculations for workplace documentation.

Target Group: This assessment is for those who are required to demonstrate entry-level proficiency with numerically oriented problem-solving skills as they relate to vehicle inspection, service and repair or workplace administrative documentation.

Exclusions or Special Conditions: Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.

Candidate Name:

Candidate ID:

Group:

Date:

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This assessment tool must be read in conjunction with the Assessment Guide

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This assessment tool may be used as a model for developing other assessment tools within an RTO.

Disclaimer

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This assessment tool has been developed to provide an example of how an RTO may approach the assessment of skills and knowledge related to units of competency. The tool is an example only and RTOs are reminded they are responsible for ensuring that any learning and assessment strategies used for assessment of an individual meet all regulatory requirements relevant to the role of an RTO.

Notes

This Assessment Tool was developed with reference to AUR Training Package Version 1.0.

ONLINE LEARNING

Assessor Information	
Conditions of Assessment:	All learning parts may be undertaken: <ul style="list-style-type: none">• Individually (self paced)• As a group activity (classroom)
Decision Making Rule:	The following learning parts from the learning program are aligned to the competency unit AURFA2001 Use numbers in an automotive workplace and must be completed: <ul style="list-style-type: none">• Learning Part 1• Learning Part 2• Learning Part 3• Learning Part 4• Learning Part 5
Date for Completion:	

Assessment: Online Learning

Unit:	AURAF2001 Use numbers in an automotive workplace
Candidate's Name:	
Date:	
RTO:	
Assessor's Name:	

<i>Satisfactory response:</i>	Y	N
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Learning Part 1	<input type="checkbox"/>	<input type="checkbox"/>
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The following topics must be completed and understood in the online learning program for this unit:

- Numbers and Maths
- Importance of Maths
- Misunderstandings
- Metric and Imperial

Learning Part 2	<input type="checkbox"/>	<input type="checkbox"/>
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The following topics must be completed and understood in the online learning program for this unit:

- Automotive Workplaces
- Mental Calculations and Estimations
- Maths Symbols
- Tools and Equipment
- Whole Numbers
- Decimals
- Rounding Numbers
- Basic Calculations

Learning Part 3	<input type="checkbox"/>	<input type="checkbox"/>
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The following topics must be completed and understood in the online learning program for this unit:

- Formulas
- Circumference
- Area of a Triangle
- Measurements
- Time
- Length
- Angles
- Volume

Fractions

Learning Part 4

The following topics must be completed and understood in the online learning program for this unit:

- Ratios and Proportions
- Equal Ratios
- Gear Ratios
- Mixing Ratios
- Air-Fuel Ratios
- Proportions
- Measuring System Table

Learning Part 5

The following topics must be completed and understood in the online learning program for this unit:

- Graphs, Charts and Tables
- Scale Drawing Plans and Diagrams
- Communication of Mathematical Information
- Use of Computers and Technology
- Mechanical Aptitude
- Problem Solving

Decision Making Rule:	All case study responses must be answered correctly to be deemed satisfactory in this assessment activity.	
	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Not Yet Satisfactory
The Candidate's Knowledge is:		
Signed by the Assessor:		Date:

KNOWLEDGE ASSESSMENT

Guide for using the knowledge assessment		
Conditions of Assessment:	<p>This assessment is to be administered and monitored by the assessor to ensure currency and authenticity.</p> <ul style="list-style-type: none"> The candidate will be provided with a limited number of attempts for each question. Clarification for each question may be provided by the assessor to assist the candidate in understanding the question. 	
Duration of Knowledge Assessment:	<p>On average the online assessment should take a candidate 40 minutes to complete.</p>	
Topics:	<ul style="list-style-type: none"> Whole numbers Decimals Fractions Geometry and measurements Ratios, proportions and percentages Sales Repair orders Automotive workplace scenarios 	
Decision Making Rule:	<p>The online learning management system uses the following decision making rules to determine if a candidate has answered all questions satisfactorily.</p> <ul style="list-style-type: none"> Questions relating to environmental and WHS/OHS = 100% Questions relating to technical and other topics = 90% 	
Marking Guide:	<p>A marking guide will not be provided, but on successful completion of assessment the candidate will be provided with a list of questions they have answered incorrectly.</p>	
Additional Information:	<p>Once the candidate has successfully completed the assessment task, the online system will generate an assessment result with a dedicated number.</p>	
Online Unique ID:	<p><i>Only required for online assessment</i></p>	
Signed by the Assessor:		<p>Date:</p>

DEMONSTRATION ASSESSMENT

Guide for assessment of demonstration

<p>Task(s) to be Demonstrated:</p>	<p>Task 3 Gather and evaluate mathematical information relating to an automotive workplace problem or job requirement</p> <p>Task 4 Explain how you would solve mathematical problems for three vehicle and/or workplace functions</p> <p>Task 5 Demonstrate how mathematical solutions are applied in workplace documents</p>
<p>Conditions of Assessment:</p>	<p>Assessors must satisfy SNR/AQTF assessor requirements.</p> <p>Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.</p> <p>Where assessment of competency includes third party evidence, individuals must provide evidence that links them to the vehicles that they have worked on, e.g. repair orders.</p> <p>Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.</p>
<p>Resources Required:</p>	<p>The following resources must be made available:</p> <ul style="list-style-type: none"> • a workplace or simulated workplace • written automotive text and service information • documentation, such as workshop service manuals, vehicle repair information, workplace documents, invoices, statements, stock records, job cards, repair quotations, personnel records, time sheets and supply quotations • equipment for calculations, such as calculators or computers.
<p>Demonstration Requirements:</p>	<p>Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria and foundation skills.</p> <p>The assessor will schedule an appropriate time and duration for the candidate to demonstrate the assessment task/s and associated questions.</p>
<p>Oral Questions:</p>	<ul style="list-style-type: none"> • Questions must be asked while the demonstration is taking place or if appropriate directly after the task/s have been completed • Access to required materials (e.g. reference materials, policy documents, workplace documents) during oral questioning may be provided.

Demonstration Assessment

Unit:	AURFA2001 Use numbers in an automotive workplace		
Candidate's Name:		
Candidate ID:		
RTO:		
Assessor's Name:		
Assessment Task Overview:	You must provide the candidate with automotive texts and equipment (see the resource requirements on the guide for assessment of demonstration) so he/she can successfully demonstrate the following tasks.		
Task 1	The candidate gathered and evaluated mathematical information relating to an automotive workplace problem or job requirement	YES	NO
	• Automotive numerical information was sourced and applied to an automotive workplace context	<input type="checkbox"/>	<input type="checkbox"/>
	• Numerical information was extracted from workplace documents and related to work requirements	<input type="checkbox"/>	<input type="checkbox"/>
	• Procedures were established for the interpretation of numerical information	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments/responses:</i>			
Task 2	The candidate explained how you would solve mathematical problems for three vehicle and/or workplace functions	YES	NO
	• Procedures were established for the interpretation of numerical information	<input type="checkbox"/>	<input type="checkbox"/>
	• Numerical information was identified and interpreted	<input type="checkbox"/>	<input type="checkbox"/>
	• Information and workplace documents that support automotive workplace administrative functions were sourced	<input type="checkbox"/>	<input type="checkbox"/>
	• Resources required in the workplace were estimated	<input type="checkbox"/>	<input type="checkbox"/>
	• Time required to complete work tasks was estimated	<input type="checkbox"/>	<input type="checkbox"/>
	• Equipment and machinery settings were estimated and adjusted	<input type="checkbox"/>	<input type="checkbox"/>

Comments/responses:

Task 3	The candidate demonstrated how mathematical solutions are applied in workplace documents	YES	NO
	• Calculations were carried out to establish comparable numerical information	<input type="checkbox"/>	<input type="checkbox"/>
	• Calculations were checked for accuracy against numerical information	<input type="checkbox"/>	<input type="checkbox"/>
	• Numerical and related information was applied to inspection, service or repair activity	<input type="checkbox"/>	<input type="checkbox"/>
	• Final estimates or calculations were documented and presented according to workplace procedures	<input type="checkbox"/>	<input type="checkbox"/>

Comments/responses:

Decision Making Rules:	Demonstration: All tasks must be performed correctly to be deemed satisfactory for this assessment activity.		
	Questions: All questions must be answered correctly to be deemed satisfactory in this assessment task, but assessors may ask questions to clarify understanding.		
The Candidate's Demonstration Was:	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not Yet Satisfactory		
Comment(s)	A comment must be recorded if a NO is ticked in any of the tasks or NYS has been indicated.		
Signed by the Assessor:		Date:	

FINAL RECORD OF ASSESSMENT

Unit:	AURAF2001 Use numbers in an automotive workplace	
Candidate's Name:		
Candidate ID:		
RTO:		
Assessor's Name:		
Assessments / Evidence:	<input type="checkbox"/> Online Learning	<input type="checkbox"/> Knowledge Assessment
Determination of Competence:	<input type="checkbox"/> Demonstration Assessment	
Competency Outcome:	All assessment tasks must be completed satisfactorily to be able to determine competence.	
Competency Outcome:	<input type="checkbox"/> Competent	<input type="checkbox"/> Not Yet Competent
Feedback to Candidate:		
Date for reassessment: <i>(if applicable)</i>		
Candidate:	I declare that I have been provided with feedback on my performance.	Signature: Date: ____/____/____
Assessor:	I declare that I have conducted the assessment with this candidate and have provided appropriate feedback.	Signature: Date: ____/____/____
Reporting Requirements:	<i>Insert any instructions specific to the training organisation.</i>	

COMPETENCY MAPPING

AURAF2001 Use numbers in an automotive workplace

Task(s)		Components of the Unit of Competency and Assessment Requirements			
		Element	Performance Evidence	Knowledge Evidence	FSK Foundation Skills TP
Online Learning					
1	Learning Part 1	1	NA	<ul style="list-style-type: none"> knowledge of workplace policies and procedures relating to the collection, storage and application of numerical information basic mathematical concepts metric and non-metric systems of measurement as they relate to numerical calculations for vehicle repairs 	<ul style="list-style-type: none"> FSKNUM03 Use whole numbers and money up to one thousand for work FSKNUM08 Identify, interpret and use whole numbers and simple fractions, decimals and percentages for work FSKNUM14 Interpret and calculate with whole numbers and familiar fractions, decimals and percentages for work FSKNUM22 Use and apply ratios, rates and proportions for work FSKNUM09 Identify, interpret, measure and estimate familiar quantities FSKNUM15 Estimate, measure and calculate with routine metric measurements for work FSKNUM23 Estimate, accurately measure and calculate measurements for work FSKNUM06 Use highly familiar maps and diagrams for work FSKNUM07 Locate specific information in highly familiar tables, graphs and charts for work FSKNUM12 Identify and interpret information in familiar tables, graphs and charts FSKNUM20 Use basic functions of a calculator
	Learning Part 2	1, 2		<ul style="list-style-type: none"> basic mathematical concepts calculations including addition, multiplication, subtraction, division, fractions and percentages calculations involving whole numbers and fractions 	
	Learning Part 3	2		<ul style="list-style-type: none"> basic mathematical concepts 	
	Learning Part 4	2		<ul style="list-style-type: none"> basic mathematical concepts 	
	Learning Part 5	2, 3		<ul style="list-style-type: none"> knowledge of workplace policies and procedures relating to the collection, storage and application of numerical information basic mathematical concepts 	

Knowledge Assessment (Online Questions)					
2	Whole numbers (15 questions)		NA	<ul style="list-style-type: none"> • basic mathematical concepts • calculations involving whole numbers and fractions 	<ul style="list-style-type: none"> • FSKNUM03 Use whole numbers and money up to one thousand for work • FSKNUM08 Identify, interpret and use whole numbers and simple fractions, decimals and percentages for work • FSKNUM14 Interpret and calculate with whole numbers and familiar fractions, decimals and percentages for work • FSKNUM22 Use and apply ratios, rates and proportions for work • FSKNUM09 Identify, interpret, measure and estimate familiar quantities • FSKNUM15 Estimate, measure and calculate with routine metric measurements for work • FSKNUM23 Estimate, accurately measure and calculate measurements for work • FSKNUM06 Use highly familiar maps and diagrams for work • FSKNUM07 Locate specific information in highly familiar tables, graphs and charts for work • FSKNUM12 Identify and interpret information in familiar tables, graphs and charts • FSKNUM20 Use basic functions of a calculator
	Decimals (12 questions)			<ul style="list-style-type: none"> • basic mathematical concepts 	
	Fractions (8 questions)			<ul style="list-style-type: none"> • basic mathematical concepts • calculations including addition, multiplication, subtraction, division, fractions and percentages • calculations involving whole numbers and fractions 	
	Geometry and measurements (5 questions)			<ul style="list-style-type: none"> • calculations including addition, multiplication, subtraction, division, fractions and percentages • metric and non-metric systems of measurement as they relate to numerical calculations for vehicle repairs 	
	Ratios, proportions and percentages (11 questions)			<ul style="list-style-type: none"> • calculations including addition, multiplication, subtraction, division, fractions and percentages 	
	Sales (7 questions)			<ul style="list-style-type: none"> • calculations including addition, multiplication, subtraction, division, fractions and percentages 	
	Repair orders (3 questions)			<ul style="list-style-type: none"> • calculations including addition, multiplication, subtraction, division, fractions and percentages 	
	Automotive workplace scenarios (14 questions)			<ul style="list-style-type: none"> • calculations including addition, multiplication, subtraction, division, fractions and percentages • knowledge of workplace policies and procedures relating to the collection, storage and application of numerical information 	

Demonstration Assessment					
3	Gather and evaluate mathematical information relating to an automotive workplace problem or job requirement	1	<ul style="list-style-type: none"> gather and evaluate mathematical information relating to the problem or job requirement 	All	<ul style="list-style-type: none"> FSKNUM03 Use whole numbers and money up to one thousand for work FSKNUM08 Identify, interpret and use whole numbers and simple fractions, decimals and percentages for work FSKNUM14 Interpret and calculate with whole numbers and familiar fractions, decimals and percentages for work FSKNUM22 Use and apply ratios, rates and proportions for work FSKNUM09 Identify, interpret, measure and estimate familiar quantities FSKNUM15 Estimate, measure and calculate with routine metric measurements for work FSKNUM23 Estimate, accurately measure and calculate measurements for work FSKNUM06 Use highly familiar maps and diagrams for work FSKNUM07 Locate specific information in highly familiar tables, graphs and charts for work FSKNUM12 Identify and interpret information in familiar tables, graphs and charts FSKNUM20 Use basic functions of a calculator
4	Explain how you would solve mathematical problems for three vehicle and/or workplace functions	1, 2	<ul style="list-style-type: none"> devise and implement mathematical and numerical solutions for a minimum of three key vehicle or workplace functions 		
5	Demonstrate how mathematical solutions are applied in workplace documents	3	<ul style="list-style-type: none"> demonstrate mathematical and numerical solutions in workplace documentation 		