

M102 Modeling with Linear Functions and Equations Badge Portfolio: A Showcase of Your Learning

Section 1: Required Tasks

Show off what you did! Submit work (or another agreed upon way of showing your thinking) for each of the tasks listed below.

	I Can Statements	Required Tasks	Student Reflection: What new learning does the task showcase?
102.a	Engage in the modeling cycle (performance assessment).	<ul style="list-style-type: none">• XQ Math Badging Performance Assessment: M102 The Cost of Driving Fast OR• IM Algebra I: Unit 2 Modeling Prompt 3: A New Heating System	
102.b	Interpret linear functions and equations that arise in applications in terms of the context.	<ul style="list-style-type: none">• IM Algebra I: Unit 2 Lesson 10 Activity 1 Graphing Games and Rides	
102.c	Analyze linear functions using different representations.	<ul style="list-style-type: none">• IM Algebra I: Unit 2 Lesson 11 Activity 1: Graphs of Two Equations	
102.d	Build linear functions that model relationships between two quantities.	<ul style="list-style-type: none">• IM Algebra I: Unit 2 Lesson 10 Activity 2: Nickels and Dimes	

Section 2: Choose Your Favorites

Show off your favorite work! For each expectation, SELECT at least one task from each group to demonstrate what you are learning. Which work do you feel best showcases all of the math you have learned?

	I Can Statements	Select at least one from each set	Student Reflection: What new learning does the task showcase?
102.b	Interpret linear functions and equations that arise in applications in terms of the context.	(Optional if additional evidence is needed) <ul style="list-style-type: none"> IM Algebra I: Unit 3 Lesson 4 Activity 2: Food Markups IM Algebra I: Unit 2 Mid-unit Assessment: Problem 3 	
102.c	Analyze linear functions using different representations.	(Optional if additional evidence is needed) <ul style="list-style-type: none"> IM Algebra I: Unit 2 Lesson 11 Cool-down: Features of a Graph IM Algebra I: Unit 2 Lesson 10 Activity 1 Graphing Games and Rides 	
102.d	Build linear functions that model relationships between two quantities.	(Optional if additional evidence is needed) <ul style="list-style-type: none"> IM Algebra I: Unit 2 Lesson 10 Cool-down: Kiran at the Carnival IM Algebra I: Unit 2 Lesson 10 Practice: Problem 3 	
102.e	Analyze and solve linear equations and pairs of simultaneous linear equations to draw conclusions.	<ul style="list-style-type: none"> IM Algebra I: Unit 2 Lesson 12 Activity 1: Meeting Constraints IM Algebra I: Unit 2 Lesson 12 Cool-down: Fabric Sale IM Algebra I: Unit 2 Lesson 17 Activity 1: What's the Deal? 	

	I Can Statements	Select at least one from each set	Student Reflection: What new learning does the task showcase?
		<ul style="list-style-type: none"> IM Algebra I: Unit 2 Modeling Prompt 3: A New Heating System 	
102.f	Interpret expressions for linear functions in terms of the situation they model.	<ul style="list-style-type: none"> IM Algebra I: Unit 2 Lesson 10 Activity 1 Graphing Games and Rides IM Algebra I: Unit 3 Lesson 4 Activity 2: Food Markups IM Algebra I: Unit 2 Mid-unit Assessment: Problem 3 	
102.g	Solve linear equations and inequalities in one variable.	<ul style="list-style-type: none"> IM Algebra I: Unit 2 Lesson 19 Activity 2: Part-Time Work IM Algebra I: Unit 2 Lesson 19 Practice: Problem 2 	
102.h	Create equations that describe linear relationships.	<ul style="list-style-type: none"> See 102.d 	
102.i	Understand the relevance of modeling with linear functions.	<ul style="list-style-type: none"> Any tasks can be used but suggest using at least one from 102.a 	
102.j	Use a linear function model to determine values of interest in a real-world problem.	<ul style="list-style-type: none"> See 102.b 	