

Mathematics and Economics Connections for Life: 9-12

Arkansas Math Framework Correlation

Overview

LESSONS	MATH CONCEPTS	MATH COURSES	MATH FRAMEWORKS
1 – The Nature of Demand	dependent/independent variables, intercepts, slope, inverse relationship	Algebra I	LF.3.AI.4 LF.3.AI.5 LF.3.AI.6 LF.3.AI.8
2 – The Nature of Supply	dependent/independent variables, direct relationship, intercepts, slope	Algebra I	LF.3.AI.4 LF.3.AI.5 LF.3.AI.8
3 – Equilibrium: Determining Prices and Quantities	dependent/independent variables, intercepts, slope, systems of linear equations, elimination and substitution methods	Algebra I	LF.3.AI.5 LF.3.AI.8 SEI.2.AI.2
4 – Understanding the Mathematics of Changes in Supply and Demand	intercept, parallel lines, slope, translation	Algebra I	LF.3.AI.4 LF.3.AI.5 LF.3.AI.7 LF.3.AI.8 SEI.2.AI.5 LA.1.AI.2
		Geometry	CGT.5.G.5
5 – The Gains From Trade	linear inequality, parallel lines, area in coordinate planes	Algebra I	SEI.2.AI.4
		Geometry	M.3.G.2
		Algebra II	LEI.2.AII.2 LEI.2.AII.3 LEI.2.AII.5
6 – The Mathematics of Linear Economic Shapes: Slopes and Elasticities	absolute value, percent of decrease/increase	Algebra I	LF.3.AI.4 LF.3.AI.5 LF.3.AI.6 NLF.4.AI.4

7 – The Mathematics of Nonlinear Economic Shapes: The Production Possibilities Curve	circle, concavity, domain, ellipse, derivative, asymptote	Algebra II	QEF.3.AII.3 QEF.3.AII.4 PRF.4.AII.5 PRF.4.AII.6
		Pre-Calculus	C.3.PCT.1 C.3.PCT.3
8 – The Mathematics on Nonlinear Economic Shapes: The Cubic Cost Function	cubic function, first/second derivatives, inflection point, quadratic function	Algebra II	PRF.4.AII.2 RF.1.AII.4 LEI.2.AII.2
9 – Profit Mathematics	concavity, first/second derivative, relative maximum, synthetic substitution	Algebra II	PRF.4.AII.2 RF.1.AII.4
10 – Powerball Economics	combinations, probability	Statistics: Probability	P.6.S.1 P.6.S.2 P.6.S.3
11 – Cash or Annuity?	annuity, compound interest, exponential series, future value, present value, principal	Algebra II	RF.1.AII.2 ELF.5.AII.1 ELF.5.AII.2
		Pre-Calculus	SS.4.PCT.3
12 – Autonomics	average, percent change	Pre-Algebra	NO.2.8.1 NO.3.8.2 NO.3.8.3 NO.3.8.6
13 – Tax Math	percent computations, piecewise functions	Pre-Algebra	NO.3.8.2 NO.3.8.3 NO.3.8.6
		Algebra I	LA.1.AI.1 LA.1.AI.2 LA.1.AI.5 SEI.2.AI.5
		Algebra II	RF.1.AII.6
14 – The Mathematics of Savings	percent, interest, present/future, exponents	Algebra I	SEI.2.AI.5
		Algebra II	ELF.5.AII.1 ELF.5.AII.2 DAP.6.AII.1

15 – The Mathematics of Credit Card Interest and Fixed Payments	mean, percent, present value, future value, exponential functions	Pre-Algebra	NO.3.8.2 NO.3.8.3 NO.3.8.6
		Algebra II	ELF.5.AII.2

