



Correlation of

Principles of Economics, 9/E,
by N. Gregory Mankiw, © 2022,
ISBN: 9780357541593

to

AP[®] Microeconomics Course
Effective Fall 2020

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Learning Objectives/Essential Knowledge	Where Addressed
AP[®] Economics Course Skills	
Skill Category 1: Principles and Models Define economic principles and models.	
1.A Describe economic concepts, principles, or models.	This course skill is addressed throughout. For example, see: 1-15, 20-25, 50-53, 62-82, 357-375, 468-469, 568-575, 590-594, 508-512
1.B Identify an economic concept, principle, or model illustrated by an example.	This course skill is addressed throughout. For example, see: 9, 31, 54, 56, 68, 306, 327, 341, 404, 440, 511-512, 546
1.C Identify an economic concept, principle, or model using quantitative data or calculations.	This standard is represented throughout. For example, see 22, 35-43, 64-65, 90, 122-123, 228, 247, 267, 360, 475-476, 494, 568, 618, 645
1.D Describe the similarities, differences, and limitations of economic concepts, principles, or models.	This course skill is addressed throughout. For example, see: 7-8, 31, 470-472, 568, 689, 701, 735, 738-739
Skill Category 2: Interpretation Explain given economic outcomes.	
2.A Using economic concepts, principles, or models, explain how a specific economic outcome occurs or what action should be taken in order to achieve a specific economic outcome.	This course skill is addressed throughout. For example, see: 110-118, 190-193, 339-340, 557-558, 617-619, 673, 705-707
2.B Using economic concepts, principles, or models, explain how a specific economic outcome occurs when there are multiple contributing variables or what multiple actions should be taken in order to achieve a specific economic outcome.	This course skill is addressed throughout. For example, see: 345-46, 452, 667-669, 732-735
2.C Interpret a specific economic outcome using quantitative data or calculations.	This standard is represented throughout. For example, see 47-49, 90-95, 154, 160, 228-229, 247, 259, 265, 267, 475, 535-536, 552, 569
Skill Category 3: Manipulation Determine outcomes of specific economic situations.	
3.A Determine the outcome of an economic situation using economic concepts, principles, or models.	This course skill is addressed throughout. For example, see: 75, 93, 111, 190, 272-273, 296, 341-343, 508-511, 579
3.B Determine the effect(s) of one or more changes on other economic markets.	The opportunity to address this course skill exists. For example, see: 689-698
3.C Determine the effect(s) of a change in an economic situation using quantitative data or calculations.	232, 252, 599

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Learning Objectives/Essential Knowledge	Where Addressed
Skill Category 4: Graphing and Visuals Model economic situations using graphs or visual representations.	
4.A Draw an accurately labeled graph or visual to represent an economic model or market.	This course skill is addressed throughout. For example, see: 122, 157, 174, 192, 274, 514, 579, 617, 665, 669
4.B Demonstrate your understanding of a specific economic situation on an accurately labeled graph or visual.	This course skill is addressed throughout. For example, see: 20, 22, 35-41, 664, 92, 111, 140, 192, 248, 274, 296, 469, 514, 579, 617
4.C Demonstrate the effect of a change in an economic situation on an accurately labeled graph or visual.	This standard is represented throughout. For example, see 49, 66, 75-77, 157, 619, 621, 655, 669, 674
AP[®] Microeconomics Course Content	
UNIT 1: Basic Economic Concepts To understand economics, students need to understand that because most resources are scarce, individuals and societies must make choices. When making rational choices, people do so “on the margin,” taking into account the additional costs and benefits of their decisions. The foundational economic ideas addressed in this unit form the basis for more advanced analysis of consumer and producer behavior that will be developed throughout the course.	
TOPIC 1.1 Scarcity	
ENDURING UNDERSTANDING	
MKT-1 Most resources are scarce, and in most cases the use of resources involves constraints and trade-offs.	
LEARNING OBJECTIVE	
MKT-1.A Define resources and the cause(s) of their scarcity.	2, 22, 512
ESSENTIAL KNOWLEDGE	
MKT-1.A.1 Economic trade-offs arise from the lack of sufficient resources (scarcity) to meet society's wants and needs.	2-3, 22-24
MKT-1.A.2 Most factors of production (such as land, labor, and capital) are scarce, but some factors of production (such as established knowledge) may not be scarce due to their non-rival nature.	The opportunity to address this Essential Knowledge exists. For example, see: 21-24, 210
TOPIC 1.2 Resource Allocation and Economic Systems	
MKT-1 Most resources are scarce, and in most cases the use of resources involves constraints and trade-offs.	
MKT-1.B Define how resource allocation is influenced by the economic system adopted by society.	The opportunity to address this Learning Objective exists. For example, see: 7-8

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Learning Objectives/Essential Knowledge	Where Addressed
MKT-1.B.1 Resource allocation involves answering three basic questions: What goods and services to produce? How to produce those goods and services? And who consumes those goods and services?	This Essential Knowledge is not directly addressed in this edition of <i>Principles of Economics</i> .
MKT-1.B.2 Resource allocation is significantly influenced by the economic system adopted by society, such as command economy, market economy, or mixed economy. Each system involves a particular set of institutional arrangements and a coordinating mechanism for allocating scarce resources and distributing output.	The opportunity to address this Essential Knowledge exists. For example, see: 9
TOPIC 1.3 Production Possibilities Curve	
MKT-1 Most resources are scarce, and in most cases the use of resources involves constraints and trade-offs.	
MKT-1.C	
a. Define (using graphs as appropriate) the production possibilities curve (PPC) and related terms.	21-24
b. Explain (using graphs as appropriate) how the production possibilities curve (PPC) illustrates opportunity costs, trade-offs, inefficiency, efficiency, and economic growth or contraction under various conditions.	24-27
c. Calculate (using data from PPCs or tables as appropriate) opportunity cost.	24-27
MKT-1.C.1 The PPC is a model used to show the trade-offs associated with allocating resources.	24-27
MKT-1.C.2 The PPC can be used to illustrate the concepts of scarcity, opportunity cost, efficiency, underutilized resources, and economic growth or contraction.	24-27
MKT-1.C.3 The shape of the PPC depends on whether opportunity costs are constant, increasing, or decreasing.	24-27
MKT-1.C.4 The PPC can shift due to changes in factors of production as well as changes in productivity/technology.	24
MKT-1.C.5 Economic growth results in an outward shift of the PPC.	21-24
TOPIC 1.4 Comparative Advantage and Trade	
MKT-2 The consequences of scarcity can be mitigated through specialization in production and by exchange.	
MKT-2.A	
a. Define absolute advantage and comparative advantage.	50, 51

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Learning Objectives/Essential Knowledge	Where Addressed
b. Determine (using data from PPCs or tables as appropriate) absolute and comparative advantage.	51
MKT-2.A.1 Absolute advantage describes a situation in which an individual, business, or country can produce more of a good or service than any other producer with the same quantity of resources.	50
MKT-2.A.2 Comparative advantage describes a situation in which an individual, business, or country can produce a good or service at a lower opportunity cost than another producer.	50-51
MKT-2.B	
a. Explain (using data from PPCs or tables as appropriate) how specialization according to comparative advantage with appropriate terms of trade can lead to gains from trade.	52, 55
b. Calculate (using data from PPCs or tables as appropriate) mutually beneficial terms of trade.	52
MKT-2.B.1 Production specialization according to comparative advantage, not absolute advantage, results in exchange opportunities that lead to consumption possibilities beyond the PPC.	52
MKT-2.B.2 Comparative advantage and opportunity costs determine the terms of trade for exchange under which mutually beneficial trade can occur.	54-55
TOPIC 1.5 Cost-Benefit Analysis	
CBA-1 Rational economic decisions require the evaluation of costs and benefits.	
CBA-1.A	
a. Define opportunity cost.	4, 50
b. Explain the opportunity costs associated with choices.	21-23
c. Calculate the opportunity costs associated with choices.	The opportunity to address this objective exists. For example, see: 21-23
CBA-1.A.1 Rational agents consider opportunity costs, whether implicit or explicit, when calculating the total economic costs of any decision.	50, 244-245, 259
CBA-1.A.2 Total benefits form the metric “utility” for consumers and total revenue for firms.	This Essential Knowledge is not directly addressed in this edition of <i>Principles of Economics</i> .
CBA-1.B	
a. Explain a decision by comparing total benefits and total costs (using a table or a graph when appropriate).	8-9, 443
b. Calculate total benefits and total costs (using a table or graph where appropriate).	The opportunity to address this objective exists. For example, see: 8-9, 443

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Learning Objectives/Essential Knowledge	Where Addressed
CBA-1.B.1 Total net benefits, the difference between total benefits and total costs, are maximized at the optimal choice.	428-429, 430
CBA-1.B.2 Some decisions permit rational agents to look at only marginal benefit and marginal cost. Other decisions cannot be broken down into increments in this way and must be evaluated by looking at total benefits and total costs.	The opportunity to address this Essential Knowledge exists. For example, see: 430, 443
TOPIC 1.6 Marginal Analysis and Consumer Choice	
CBA-2 To determine the optimal level at which to pursue an activity whose total benefits exceed total cost, rational economic agents compare marginal benefits and marginal costs.	
CBA-2.A	
a. Define the key assumptions of consumer choice theory.	419-420
b. Explain (using a table or graph as appropriate) how a rational consumer's decision making involves the use of marginal benefits and marginal costs.	428-431
c. Calculate (using a table or a graph when appropriate) how a rational consumer's decision making involves the use of marginal benefits and marginal costs.	The opportunity to address this objective exists. For example, see: 434
CBA-2.A.1 Consumers face constraints and have to make optimal decisions accounting for these constraints.	429, 443
CBA-2.A.2 In a model of rational consumer choice, consumers are assumed to make choices so as to maximize their total utility.	443
CBA-2.A.3 Consumers experience diminishing marginal utility in the consumption of goods and services.	430, 555
CBA-2.A.4 Consumers allocate their limited income to purchase the combination of goods that maximizes their utility by equating/comparing the marginal utility of the last dollar spent on each good.	429-430
CBA-2.B	
a. Define marginal analysis and related terms.	4, 6
b. Explain a decision using marginal analysis (using a table or a graph when appropriate).	4, 266-267
CBA-2.B.1 Marginal analysis involves comparing the additional benefit of increasing a given activity with the additional cost. Comparing marginal benefit (MB) with marginal cost (MC) helps individuals (firms) decide whether to increase, decrease, or maintain their consumption (production) levels.	266-269, 294-295

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Learning Objectives/Essential Knowledge	Where Addressed
CBA-2.B.2 The optimal quantity at any point in time does not depend on fixed costs (sunk costs) or fixed benefits that have already been determined by past choices.	270-272
CBA-2.B.3 The optimal quantity is achieved when marginal benefit is equal to marginal cost or where total benefit is maximized.	295
UNIT 2: Supply and Demand This unit will provide the basis for understanding how markets work by introducing the supply and demand model. Students will build on the concepts of scarcity and choice that were introduced in the first unit and explore the factors that influence consumer and producer behavior. They will learn how the interaction of consumers and producers in competitive markets determines market prices and results in the most efficient allocation of scarce resources. At the end of the unit, students will also begin exploring the effects of government policy on market outcomes, laying the groundwork for additional analysis in the last unit of the course.	
TOPIC 2.1 Demand	
ENDURING UNDERSTANDING	
MKT-3 Individuals and firms respond to incentives and face constraints.	
LEARNING OBJECTIVE	
MKT-3.A	
a. Define (using graphs as appropriate) key terms and factors related to consumer decision making and the law of demand.	63-69
b. Explain (using graphs as appropriate) the relationship between price and quantity demanded and how buyers respond to incentives and constraints.	63-69
ESSENTIAL KNOWLEDGE	
MKT-3.A.1 A well-defined system of property rights is necessary for the market system to function well.	9, 221-222
MKT-3.A.2 Economic agents respond to incentives.	5-6
MKT-3.A.3 Individuals often respond to incentives, such as those presented by prices, but also face constraints, such as income, time, and legal and regulatory frameworks.	5-6, 163, 191, 231, 289, 398, 421-422
MKT-3.A.4 The law of demand suggests that a change in the own-price causes a change in quantity demanded in the opposite direction and a movement along a demand (marginal benefit) curve.	63-66, 88

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Learning Objectives/Essential Knowledge	Where Addressed
MKT-3.A.5 The conceptual relationship between price and quantity stated by the law of demand leads to downward-sloping demand curves explained by the income effect and substitution effect and/or by diminishing marginal utility.	64, 432-433
MKT-3.A.6 The market demand curve (schedule) is derived from the summation of individual demand curves (schedules).	65
MKT-3.B Explain (using graphs as appropriate) buyers' responses to changes in incentives and constraints.	65-67
MKT-3.B.1 Changes in the determinants of consumer demand can cause the demand curve to shift.	65-67
TOPIC 2.2 Supply	
MKT-3 Individuals and firms respond to incentives and face constraints.	
MKT-3.C	
a. Define (using graphs as appropriate) the law of supply.	69-70
b. Explain (using graphs as appropriate) the relationship between price and quantity supplied.	69-70
MKT-3.C.1 A change in own-price causes a change in quantity supplied in the same direction and a movement along a supply curve.	60-70
MKT-3.C.2 The market supply curve (schedule) is derived from the summation of individual supply curves (schedules). The market supply curve is upward-sloping.	71
MKT-3.D Explain (using graphs as appropriate) producers' (sellers') responses to changes in incentives and technology.	71-72
MKT-3.D.1 Changes in the determinants of supply can cause the supply curve to shift.	71-73
TOPIC 2.3 Price Elasticity of Demand	
MKT-3 Individuals and firms respond to incentives and face constraints.	
MKT-3.E	
a. Define measures of elasticity.	88, 96-97
b. Explain (using graphs where appropriate) measures of elasticity and the impact of a given price change on total revenue or total expenditure.	92-95, 99-100
c. Calculate (using data from a graph or a table as appropriate) measures of elasticity.	89-90, 96, 98
MKT-3.E.1 Economists use the concept of elasticity to measure the magnitude of percentage changes in quantity owing to any given changes in the own-price, income, and prices of related goods.	87-105

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Learning Objectives/Essential Knowledge	Where Addressed
MKT-3.E.2 Price elasticity of demand is measured by the percentage change in quantity demanded divided by the percentage change in price or the responsiveness of the quantity demanded to changes in price. Elasticity varies along a linear demand curve, meaning slope is not elasticity.	95
MKT-3.E.3 Ranges of values of elasticity of demand are described as elastic or inelastic with the separating benchmark being a magnitude of 1, where the change in the price and the change in the quantity demanded are proportional.	92
a. When the magnitude of the value of elasticity is greater than 1, the demand is described as being elastic with respect to that price in the range of the given change.	88, 92
b. When the magnitude of the value of elasticity is less than 1, the demand is described as being inelastic with respect to that price in the range of the given change.	92, 94
c. When the magnitude of the value of elasticity is equal to 1, the demand is described as being unit elastic with respect to that price in the range of the given change.	92, 95
MKT-3.E.4 The price elasticity of demand depends on certain factors such as the availability of substitutes.	88
MKT-3.E.5 The impact of a given price change on total revenue or total expenditure will depend on whether demand is elastic, inelastic, or unit elastic.	93-96, 100-105
TOPIC 2.4 Price Elasticity of Supply	
MKT-3 Individuals and firms respond to incentives and face constraints.	
MKT-3.E	
a. Define measures of elasticity.	88, 96-97
b. Explain (using graphs where appropriate) measures of elasticity and the impact of a given price change on total revenue or total expenditure.	92-95, 99-100
c. Calculate (using data from a graph or a table as appropriate) measures of elasticity.	89-90, 96, 98
MKT-3.E.6 Price elasticity of supply is measured by the percentage change in quantity supplied divided by the percentage change in price, or the responsiveness of the quantity supplied to changes in price.	97, 100-105
MKT-3.E.7 Ranges of values of elasticity of supply are described as elastic or inelastic with the separating benchmark being a magnitude of 1, where the change in the price and the change in the quantity supplied are proportional.	98-100

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Learning Objectives/Essential Knowledge	Where Addressed
a. When the magnitude of the value of elasticity is greater than 1, the supply is described as being elastic with respect to that price in the range of the given change.	99-100
b. When the magnitude of the value of elasticity is less than 1, the supply is described as being inelastic with respect to that price in the range of the given change.	99-100
c. When the magnitude of the value of elasticity is equal to 1, the supply is described as being unit elastic with respect to that price in the range of the given change.	99
MKT-3.E.8 The price elasticity of supply depends on certain factors such as the price of alternative inputs.	97
TOPIC 2.5 Other Elasticities	
MKT-3 Individuals and firms respond to incentives and face constraints.	
MKT-3.E	
a. Define measures of elasticity.	88, 96-97
b. Explain (using graphs where appropriate) measures of elasticity and the impact of a given price change on total revenue or total expenditure.	92-95, 99-100
c. Calculate (using data from a graph or a table as appropriate) measures of elasticity.	89-90, 96, 98
MKT-3.E.9 Elasticity can be measured for any determinant of demand or supply, not just the price.	96-98
MKT-3.E.10 Income elasticity of demand is measured by the percentage change in the quantity demanded divided by the percentage change in consumers' income. Economists use the income elasticity of demand to determine whether a good is normal or inferior.	96
MKT-3.E.11 Cross-price elasticity of demand is measured by the percentage change in the quantity demanded of one good divided by the percentage change in the price of another good. Economists use the cross-price elasticity of demand to determine whether goods are substitutes, complements, or not related.	96
TOPIC 2.6 Market Equilibrium and Consumer and Producer Surplus	
MKT-4 Although equilibria are stable, an economy can move from one equilibrium to another if market conditions change.	
MKT-4.A	
a. Define (using graphs as appropriate) market equilibrium, consumer surplus, and producer surplus.	73, 133, 138, 142

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Learning Objectives/Essential Knowledge	Where Addressed
b. Explain (using graphs as appropriate) how equilibrium price, quantity, consumer surplus, and producer surplus for a good or service are determined.	133-136, 138-140, 143
c. Calculate (using data from a graph or table as appropriate) areas of consumer surplus and producer surplus at equilibrium.	134, 138
MKT-4.A.1 The supply-demand model is a tool for understanding what factors influence prices and quantities and why prices and quantities might differ across markets or change over time.	73-82
MKT-4.A.2 In a perfectly competitive market, equilibrium is achieved (and markets clear with no shortages or surpluses) when the price of a good or service brings the quantity supplied and quantity demanded into balance, in the sense that buyers wish to purchase the same quantity that sellers wish to provide.	74-75
MKT-4.A.3 Equilibrium price provides information to economic decision-makers to guide resource allocation.	80-82
MKT-4.A.4 Economists use consumer surplus and producer surplus to measure the benefits markets create to buyers and sellers and understand market efficiency.	141
MKT-4.A.5 Market equilibrium maximizes total economic surplus in the absence of market failures, meaning that perfectly competitive markets are efficient.	144-145
TOPIC 2.7 Market Disequilibrium and Changes in Equilibrium	
MKT-4 Although equilibria are stable, an economy can move from one equilibrium to another if market conditions change.	
MKT-4.B	
a. Define a surplus and shortage.	74-75
b. Explain (using graphs where appropriate) how changes in underlying conditions and shocks to a competitive market can alter price, quantity, consumer surplus, and producer surplus.	136, 140
c. Calculate (using data from a graph or table as appropriate) changes in price, quantity, consumer surplus, and producer surplus in response to changes in market conditions or market disequilibrium.	77-82, 136, 140
MKT-4.B.1 Whenever markets experience imbalances— creating disequilibrium prices and quantities, surpluses, and shortages—market forces drive price and quantity toward equilibrium.	74-81

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Learning Objectives/Essential Knowledge	Where Addressed
MKT-4.B.2 Factors that shift the market demand and market supply curves cause price, quantity, consumer surplus, producer surplus, and total economic surplus (within that market) to change. The impact of the change depends on the price elasticities of demand and supply.	76-81, 100-105, 136, 140
TOPIC 2.8 The Effects of Government Intervention in Markets	
POL-1 Government policies influence consumer and producer behavior and therefore affect market outcomes.	
POL-1.A	
a. Define forms of government price and quantity intervention.	110
b. Explain (using graphs where appropriate) how government policies alter consumer and producer behaviors that influence incentives and therefore affect outcomes.	110-118
c. Calculate (using data from a graph or table where appropriate) changes in market outcomes resulting from government policies.	The opportunity to address this objective exists. For example, see: 110-118
POL-1.A.1 Some government policies, such as price floors, price ceilings, and other forms of price and quantity regulation, affect incentives and outcomes in all market structures.	110-118, 410
POL-1.A.2 Governments use taxes and subsidies to change incentives in ways that influence consumer and producer behavior, shifting the supply and demand curves accordingly.	119-124, 410-415
POL-1.A.3 Taxes and subsidies affect government revenues or costs.	160-162
POL-1.A.4 Government intervention in a market producing the efficient quantity through taxes, subsidies, price controls, or quantity controls can only decrease allocative efficiency.	The opportunity to address this Essential Knowledge exists. For example, see: 9-10, 118-123
POL-1.A.5 Deadweight loss represents the losses to buyers and sellers as a result of government intervention in an efficient market.	152-156, 230-231
POL-1.A.6 The incidence of taxes and subsidies imposed on goods traded in perfectly competitive markets depends on the elasticity of supply and demand.	119-126, 238
TOPIC 2.9 International Trade and Public Policy	
POL-1 Government policies influence consumer and producer behavior and therefore affect market outcomes.	
POL-1.B	
a. Define tariffs and quotas.	173-175
b. Explain (using graphs where appropriate) how markets are affected by public policy related to international trade.	170-175

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Learning Objectives/Essential Knowledge	Where Addressed
c. Calculate (using data from a graph or table as appropriate) changes in market outcomes resulting from public policy related to international trade.	174
POL-1.B.1 Equilibria in competitive markets may be altered by the decision to open an economy to trade with other countries; equilibrium price can be higher or lower than under autarky, and the gap between domestic supply and demand is filled by trade. Opening an economy to trade with other countries affects consumer surplus, producer surplus, and total economic surplus.	176-177
POL-1.B.2 Tariffs, which governments sometimes use to influence international trade, affect domestic price, quantity, government revenue, and consumer surplus and total economic surplus.	31, 174, 176, 691, 693
POL-1.B.3 Quotas can be used to alter quantities produced and therefore affect price, consumer surplus, and total economic surplus.	The opportunity to address this Essential Knowledge exists. For example, see: 175
UNIT 3: Production, Cost, and the Perfect Competition Model Unit 3 focuses on firm behavior and culminates with an introduction to the perfect competition model, which will form a basis of comparison for other market structures in the next unit. This unit builds on the idea of supply, which was introduced in the previous unit, and explores in more detail what drives the decisions that firms make. Thinking like a firm may be challenging for students, who are more used to acting as consumers in their everyday lives. Drawing connections to students' own experiences and carrying out classroom simulations can help bring these concepts to life. Reminding students of the ways in which the behavior of firms is consistent with the ideas of cost-benefit analysis and marginal decision-making addressed in the first unit of the course may also be helpful in elucidating these concepts.	
TOPIC 3.1 The Production Function	
ENDURING UNDERSTANDING	
PRD-1 Firms' production and cost constraints over different input and output levels shape optimal decisions in the short run and long run.	
LEARNING OBJECTIVE	
PRD-1.A	
a. Define (using graphs where appropriate) key terms and concepts relating to production and cost.	244-258
b. Explain (using graphs where appropriate) how production and cost are related in the short run and long run.	246-256, 256-259
c. Calculate (using data from a graph or table as appropriate) the various measures of productivity and short-run and long-run costs.	244-247, 250-254

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ESSENTIAL KNOWLEDGE	
PRD-1.A.1 The production function explains the relationship between inputs and outputs both in the short run and the long run.	247-249, 256-258
PRD-1.A.2 Marginal product and average product change as input usage changes, and hence, total product changes.	The opportunity to address this Essential Knowledge exists. For example, see: 247
PRD-1.A.3 Diminishing marginal returns occur as the firm employs more of one input, holding other inputs constant, to produce a product (output) in the short run.	248-249
TOPIC 3.2 Short-Run Production Costs	
PRD-1 Firms' production and cost constraints over different input and output levels shape optimal decisions in the short run and long run.	
PRD-1.A	
a. Define (using graphs where appropriate) key terms and concepts relating to production and cost.	244-258
b. Explain (using graphs where appropriate) how production and cost are related in the short run and long run.	246-256, 256-259
c. Calculate (using data from a graph or table as appropriate) the various measures of productivity and short-run and long-run costs.	244-247, 250-254
PRD-1.A.4 Fixed costs and variable costs determine the total cost.	250-252
PRD-1.A.5 Marginal cost, average (fixed, variable, and total) cost, total cost, and total variable cost change as total output changes, but total fixed cost remains constant at all output levels, including zero output.	250-252
PRD-1.A.6 Production functions with diminishing marginal returns yield an upward-sloping marginal cost curve.	252-254
PRD-1.A.7 Specialization and the division of labor reduce marginal costs for firms.	254-255, 257
PRD-1.A.8 Cost curves can shift in response to changes in input costs and productivity.	The opportunity to address this Essential Knowledge exists. For example, see: 256-259
TOPIC 3.3 Long-Run Production Costs	
PRD-1 Firms' production and cost constraints over different input and output levels shape optimal decisions in the short run and long run.	
PRD-1.A	
a. Define (using graphs where appropriate) key terms and concepts relating to production and cost.	244-258

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Learning Objectives/Essential Knowledge	Where Addressed
b. Explain (using graphs where appropriate) how production and cost are related in the short run and long run.	246-256, 256-259
c. Calculate (using data from a graph or table as appropriate) the various measures of productivity and short-run and long-run costs.	244-247, 250-254
PRD-1.A.9 In the long run, firms can adjust all their inputs, and as a result, all costs become variable.	The opportunity to address this Essential Knowledge exists. For example, see: 256-257, 259
PRD-1.A.10 The relationship between inputs and outputs in the long run is described by the scale of production—increasing, decreasing, or constant returns to scale.	256-258
PRD-1.A.11 The long-run average total cost is characterized by economies of scale, diseconomies of scale, or constant returns to scale (efficient scale).	257-258
PRD-1.A.12 The minimum efficient scale plays a role in determining the concentration of firms in a market and the market structure.	257-258, 276, 280-281, 309
TOPIC 3.4 Types of Profit	
CBA-2 To determine the optimal level at which to pursue an activity whose total benefits exceed total cost, rational economic agents compare marginal benefits and marginal costs.	
CBA-2.C	
a. Define the different types of profit.	244-246
b. Explain how firms respond to profit opportunities.	246, 267, 272-275, 294-297
c. Calculate a firm's profit or loss.	244
CBA-2.C.1 Firms respond to economic profit (loss) rather than accounting profit.	246
CBA-2.C.2 Accounting profit fails to account for implicit costs (such as cost of financial capital, compensation for risk, or an entrepreneur's time), which, if fully compensated, result in normal profit.	246
TOPIC 3.5 Profit Maximization	
CBA-2 To determine the optimal level at which to pursue an activity whose total benefits exceed total cost, rational economic agents compare marginal benefits and marginal costs.	
CBA-2.D	
a. Define (using graphs or data as appropriate) the profit-maximizing rule.	266-268, 294-296
b. Explain (using a graph or data as appropriate) the profit-maximizing level of production.	268, 295-296, 321, 331
CBA-2.D.1 Firms are assumed to produce output to maximize their profits by comparing marginal revenue and marginal cost.	266-268, 294-296, 312

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Learning Objectives/Essential Knowledge	Where Addressed
TOPIC 3.6 Firms' Short-Run Decisions to Produce and Long-Run Decisions to Enter or Exit a Market	
PRD-2 Firms' short-run decisions to produce output, and long-run decisions to enter or exit a market, are based on profitability.	
PRD-2.A Explain (using graphs or data where appropriate) firms' short-run decisions to produce positive output levels, or long-run decisions to enter or exit a market in response to profit-making opportunities.	268-274
PRD-2.A.1 In the short run, firms decide to operate (i.e., produce positive output) or shut down (i.e., produce zero output) by comparing total revenue to total variable cost or price to average variable cost (AVC).	270-271
PRD-2.A.2 In the absence of barriers to entry or exit, in the long run (i.e., once factors that are fixed in the short run become variable), firms enter a market in which there are profit-making opportunities and exit a market when they anticipate economic losses.	270, 272-73, 276-77
TOPIC 3.7 Perfect Competition	
PRD-3 Even with a common goal of profit-maximization, market structure constrains and influences prices, output, and efficiency.	
PRD-3.A	
a. Define (using graphs as appropriate) the characteristics of perfectly competitive markets and efficiency.	264
b. Explain (using graphs where appropriate) equilibrium and firm decision making in perfectly competitive markets and how prices in perfectly competitive markets lead to efficient outcomes.	254-277, 282
c. Calculate (using data from a graph or table as appropriate) economic profit (loss) in perfectly competitive markets.	266-267, 274-275
PRD-3.A.1 A perfectly competitive market is efficient. Firms in perfectly competitive markets face no barriers to entry and have no market power.	263-264
PRD-3.A.2 In perfectly competitive markets, prices communicate to consumers and producers the magnitude of others' marginal costs of production and marginal benefits of consumption and provide incentives to act on that information (i.e., price equals marginal cost in an efficient market).	The opportunity to address this Essential Knowledge exists. For example, see: 4-6, 277
PRD-3.A.3 In perfectly competitive markets, firms can sell all their outputs at a constant price determined by the market.	264-265
PRD-3.A.4 At a competitive market equilibrium, firms are price takers and select output to maximize profit by producing the level of output where the marginal cost equals marginal revenue (at the price).	266-269

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Learning Objectives/Essential Knowledge	Where Addressed
PRD-3.A.5 At a competitive market equilibrium, the price of a product equals both the private marginal benefit received by the last unit consumed and the private marginal cost incurred to produce the last unit, thus achieving allocative efficiency.	The opportunity to address this Essential Knowledge exists. For example, see: 143, 268
PRD-3.A.6 In a short-run competitive equilibrium, price can either be above or below its long-run competitive level resulting in profits or losses, motivating entry or exit of firms and moving prices and quantities toward long-run equilibrium.	269-271, 272-274
PRD-3.A.7 In a long-run perfectly competitive equilibrium, productive efficiency implies all operating firms produce at efficient scale, price equals marginal cost and minimum average total cost, and firms earn zero economic profit.	276-279
PRD-3.A.8 Firms may be in a constant cost, increasing cost, or decreasing cost industry. Long-run prices depend on the portion of the long-run cost curves on which firms operate.	278
PRD-3.A.9 A perfectly competitive market in long-run equilibrium is allocatively and productively efficient.	143, 145, 277
UNIT 4: Imperfect Competition In the real world, firms rarely operate in perfectly competitive markets. In this unit, students will encounter the ways in which imperfectly competitive markets depart from the model of perfect competition introduced in Unit 3. Students will continue to build on their understanding of what it means for a market to be efficient or inefficient as they consider the welfare implications of imperfect markets. In the context of learning about oligopoly behavior, students will be introduced to the field of game theory as an approach to studying strategic decision making.	
TOPIC 4.1 Introduction to Imperfectly Competitive Markets	
ENDURING UNDERSTANDING	
PRD-3 Even with a common goal of profit-maximization, market structure constrains and influences prices, output, and efficiency.	
LEARNING OBJECTIVE	
PRD-3.B	
a. Define (using graphs where appropriate) the characteristics of imperfectly competitive markets and inefficiency.	288-290, 318-324, 335-340
ESSENTIAL KNOWLEDGE	
PRD-3.B.1 Imperfectly competitive markets include monopoly, oligopoly, and monopolistic competition in product markets and monopsony in factor markets.	288-290, 318-324, 335-340, 370

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Learning Objectives/Essential Knowledge	Where Addressed
PRD-3.B.2 In imperfectly competitive output markets and assuming all else is constant, a firm must lower price to sell additional units.	291-293, 321-323, 327
PRD-3.B.3 In imperfectly competitive markets, consumers and producers respond to prices that are above the marginal costs of production and/or marginal benefits of consumption (i.e., price is greater than marginal cost in an inefficient market).	295-296, 301, 304, 323, 331
PRD-3.B.4 Incentives to enter an industry may be mitigated by barriers to entry. Barriers to entry—such as high fixed/start-up costs, legal barriers to entry, and exclusive ownership of key resources—can sustain imperfectly competitive market structures.	288-291
TOPIC 4.2 Monopoly	
PRD-3 Even with a common goal of profit-maximization, market structure constrains and influences prices, output, and efficiency.	
PRD-3.B	
b. Explain (using graphs where appropriate) equilibrium, firm decision making, consumer surplus, producer surplus, profit (loss), and deadweight loss in imperfectly competitive markets and why prices in imperfectly competitive markets cannot be relied on to coordinate the actions of all possible market participants and can lead to inefficient outputs.	295-297, 299-301, 304
c. Calculate (using data from a graph or table as appropriate) areas of consumer surplus, producer surplus, profit (loss), and deadweight loss in imperfectly competitive markets.	300-301, 304
PRD-3.B.5 A monopoly exists because of barriers to entry.	288-290
PRD-3.B.6 In a monopoly, equilibrium (profit-maximizing) quantity is determined by equating marginal revenue (MR) to marginal cost (MC). The price charged is greater than the marginal cost.	291-296
PRD-3.B.7 In a natural monopoly, long-run economies of scale for a single firm exist throughout the entire effective demand of its product.	211, 290-291, 309

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Learning Objectives/Essential Knowledge	Where Addressed
TOPIC 4.3 Price Discrimination	
PRD-3 Even with a common goal of profit-maximization, market structure constrains and influences prices, output, and efficiency.	
PRD-3.B	
b. Explain (using graphs where appropriate) equilibrium, firm decision making, consumer surplus, producer surplus, profit (loss), and deadweight loss in imperfectly competitive markets and why prices in imperfectly competitive markets cannot be relied on to coordinate the actions of all possible market participants and can lead to inefficient outputs.	295-297, 299-301, 304
c. Calculate (using data from a graph or table as appropriate) areas of consumer surplus, producer surplus, profit (loss), and deadweight loss in imperfectly competitive markets.	300-301, 304
PRD-3.B.8 A firm with market power can engage in price discrimination to increase its profits or capture additional consumer surplus under certain conditions.	302-307
PRD-3.B.9 With perfect price discrimination, a monopolist produces the quantity where price equals marginal cost (just as a competitive market would) but extracts all economic surplus associated with its product and eliminates all deadweight loss.	304-305
TOPIC 4.4 Monopolistic Competition	
PRD-3 Even with a common goal of profit-maximization, market structure constrains and influences prices, output, and efficiency.	
PRD-3.B	
b. Explain (using graphs where appropriate) equilibrium, firm decision making, consumer surplus, producer surplus, profit (loss), and deadweight loss in imperfectly competitive markets and why prices in imperfectly competitive markets cannot be relied on to coordinate the actions of all possible market participants and can lead to inefficient outputs.	295-297, 299-301, 304
c. Calculate (using data from a graph or table as appropriate) areas of consumer surplus, producer surplus, profit (loss), and deadweight loss in imperfectly competitive markets.	300-301, 304

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Learning Objectives/Essential Knowledge	Where Addressed
PRD-3.B.10 In a market with monopolistic competition, firms producing differentiated products may earn positive, negative, or zero economic profit in the short run. Firms typically use advertising as a means of differentiating their product. Free entry and exit drive profits to zero in the long run. The output level, however, is smaller than the output level needed to minimize average total costs, creating excess capacity. The price is greater than marginal cost, creating allocative inefficiency.	317-332
TOPIC 4.5 Oligopoly and Game Theory	
PRD-3 Even with a common goal of profit-maximization, market structure constrains and influences prices, output, and efficiency.	
PRD-3.C	
a. Define (using tables as appropriate) key terms, strategies, and concepts relating to oligopolies and simple games.	335-342
b. Explain (using tables as appropriate) strategies and equilibria in simple games and the connections to theoretical behaviors in various oligopoly market and non-market settings.	341-347
c. Calculate (using tables as appropriate) the incentive sufficient to alter a player's dominant strategy.	341, 342, 344, 345
PRD-3.C.1 An oligopoly is an inefficient market structure with high barriers to entry, where there are few firms acting interdependently.	336-340
PRD-3.C.2 Firms in an oligopoly have an incentive to collude and form cartels.	336-339
PRD-3.C.3 A game is a situation in which a number of individuals take actions, and the payoff for each individual depends directly on both the individual's own choice and the choices of others.	341-347
PRD-3.C.4 A strategy is a complete plan of actions for playing a game; the normal form model of a game shows the payoffs that result from each collection of strategies (one for each player).	342, 344, 345
PRD-3.C.5 A player has a dominant strategy when the payoff to a particular action is always higher independent of the action taken by the other player. Dominant strategies can be eliminated from each player's action set and can sometimes lead to an equilibrium outcome (see Nash equilibrium on next page).	342, 792
PRD-3.C.6 A Nash equilibrium is a condition describing the set of actions in which no player can increase his or her payoff by unilaterally taking another action, given the other players' actions.	338, 342, 460

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Learning Objectives/Essential Knowledge	Where Addressed
PRD-3.C.7 Oligopolists have difficulty achieving the monopoly outcome for reasons similar to those that prevent players from achieving a cooperative outcome in the Prisoner's Dilemma; nevertheless, prices are generally higher and quantities lower with oligopoly (or duopoly) than with perfect competition.	339, 343
UNIT 5: Factor Markets By this point in the course, students are familiar with how product markets operate and what drives firm decision making. In this unit, students will apply many of the concepts they learned previously but now in the context of factor markets. Like with product markets, the laws of supply and demand apply to factor markets with an upward-sloping supply curve and a downward-sloping demand curve. In factor markets, firms hire additional resources up to the point at which the resource's marginal revenue product is equal to its marginal resource cost. This decision is another application of the idea first introduced in Unit 1 of making an optimal choice by equating marginal benefit with marginal cost and firms' decisions to maximize profits where marginal revenue equals marginal cost.	
TOPIC 5.1 Introduction to Factor Markets	
ENDURING UNDERSTANDING	
PRD-4 Factor prices provide incentives and convey information to firms and factors of production.	
LEARNING OBJECTIVE	
PRD-4.A	
a. Define (using graphs where appropriate) key terms and concepts relating to factor markets.	357-361
b. Explain (using graphs where appropriate) the relationship between factors of production, firms, and factor prices.	358-362
c. Calculate (using data from a graph or table where appropriate) the marginal revenue product and marginal resource cost.	359-364
ESSENTIAL KNOWLEDGE	
PRD-4.A.1 Factors of production (labor, capital, and land) respond to factor prices (wages, interest, and rent), and employers' (firms') decision to hire is based on the productivity of the factors, output price, and cost of the factor.	364-368, 370-372
PRD-4.A.2 The quantity of labor demanded is negatively related to the wage rate, while the quantity of labor supplied is positively related to the wage rate in a given labor market, other things constant.	361-363

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Learning Objectives/Essential Knowledge	Where Addressed
TOPIC 5.2 Changes in Factor Demand and Factor Supply	
PRD-4 Factor prices provide incentives and convey information to firms and factors of production.	
PRD-4.B Explain (using graphs where appropriate) firms' and factors' responses to changes in incentives and constraints.	364-365, 367-369
PRD-4.B.1 Changes in the determinants of labor demand, such as the output price and the productivity of the worker, cause the labor demand curve to shift.	362-363, 368-369
PRD-4.B.2 Changes in the determinants of labor supply (such as immigration, education, working conditions, age distribution, availability of alternative options, preferences for leisure, and cultural expectations) cause the labor supply curve to shift.	364-368
TOPIC 5.3 Profit-Maximizing Behavior in Perfectly Competitive Factor Markets	
PRD-4 Factor prices provide incentives and convey information to firms and factors of production.	
PRD-4.C	
a. Define (using graphs as appropriate) the characteristics of perfectly competitive factor markets.	366-369
b. Explain (using graphs where appropriate) the profit-maximizing behavior of firms buying labor (with other inputs fixed) in perfectly competitive markets.	366-368
c. Calculate (using data from a graph or table where appropriate) measures representing the profit-maximizing behavior of firms buying labor (with other inputs fixed) in perfectly competitive markets.	361, 366-368
PRD-4.C.1 In a perfectly competitive labor market, the wage is set by the market and each firm hires the quantity of workers, where the marginal factor (resource) cost (wage) equals the marginal revenue product of labor. A typical firm may be a perfect competitor in the labor market even if it is an imperfect competitor in its output markets.	358-363, 369
PRD-4.C.2 A typical firm hires labor in a perfectly competitive labor market as long as the marginal revenue product of labor is greater than the market wage.	358-362
PRD-4.C.3 To minimize costs or maximize profits, firms allocate inputs such that the last dollar spent on each input yields the same amount of marginal product.	This Essential Knowledge is not directly addressed in this edition of <i>Principles of Economics</i> .

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Learning Objectives/Essential Knowledge	Where Addressed
PRD-4.C.4 Marginal revenue product of a factor of production is the change in total revenue divided by the change in that factor of production, which is also equal to the marginal physical product of that factor multiplied by the marginal revenue ($MRP = MP \times MR$). Firms in a perfectly competitive output market will have marginal revenue product of labor that is equal to the value of the marginal product of labor ($VMPL = MPL \times P$) because marginal revenue for each unit of output is equal to price.	359-362
TOPIC 5.4 Monopsonistic Markets	
PRD-4 Factor prices provide incentives and convey information to firms and factors of production.	
PRD-4.D	
a. Define (using graphs as appropriate) the characteristics of monopsonistic markets.	370
b. Explain (using graphs where appropriate) the profit-maximizing behavior of firms buying labor (with other inputs fixed) in monopsonistic markets.	The opportunity to address this objective exists. For example, see: 370
c. Calculate (using data from a graph or table where appropriate) measures representing the profit maximizing behavior of firms buying labor (with other inputs fixed) in monopsonistic markets.	The opportunity to address this objective exists. For example, see: 370
PRD-4.D.1 In a monopsonistic labor market, a typical firm hires additional labor as long as the marginal revenue product is greater than the marginal factor (resource) cost (the wage of a new unit of labor plus the wage increase given to all existing labor).	The opportunity to address this Essential Knowledge exists. For example, see: 370
PRD-4.D.2 When a typical firm hires additional workers in a monopsonistic labor market, the marginal factor (resource) cost is greater than the supply price of labor.	The opportunity to address this Essential Knowledge exists. For example, see: 370

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Learning Objectives/Essential Knowledge	Where Addressed
UNIT 6: Market Failure and the Role of Government This unit prepares students to understand the theoretical arguments for and against government intervention in markets and therefore has important public policy applications. Students will examine the conditions under which markets may fail and the effectiveness of government policies that are designed to correct market failures. In exploring the idea of market failures and government interventions to correct them, students will build on their understanding of efficiency and what it means for a firm to produce the socially optimal quantity or not. Students will also learn about how inequality is measured and the sources of income and wealth inequality.	
TOPIC 6.1 Socially Efficient and Inefficient Market Outcomes	
ENDURING UNDERSTANDING	
POL-2 Perfectly competitive markets allocate resources efficiently, but imperfect competition often results in market inefficiencies.	
LEARNING OBJECTIVE	
POL-2.A	
a. Define social efficiency.	190-192, 299
b. Explain (using graphs where appropriate) why resource allocation in perfectly competitive markets is socially efficient.	142-144, 154-155, 189
ESSENTIAL KNOWLEDGE	
POL-2.A.1 The optimal quantity of a good occurs where the marginal benefit of consuming the last unit equals the marginal cost of producing that last unit, thus maximizing total economic surplus.	142-144, 154-155, 189-190, 299, 346
POL-2.A.2 The market equilibrium quantity is equal to the socially optimal quantity only when all social benefits and costs are internalized by individuals in the market. Total economic surplus is maximized at that quantity. [See also PRD-3 and POL-3.]	188-191
POL-2.B Explain (using graphs where appropriate) how private incentives can lead to actions by rational agents that are socially undesirable (inefficient) market outcomes.	188-191
POL-2.B.1 Rational agents can pursue private actions to exploit or exercise market characteristics known as market power.	5, 145, 147-148
POL-2.B.2 Rational agents make optimal decisions by equating private marginal benefits and private marginal costs that can result in market inefficiencies.	189-191
POL-2.B.3 Policymakers use cost-benefit analysis to evaluate different actions to reduce or eliminate market inefficiencies.	191-200

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Learning Objectives/Essential Knowledge	Where Addressed
POL-2.B.4 Market inefficiencies can be eliminated by designing policies that equate marginal social benefit with marginal social cost.	191-200
POL-2.C	
a. Explain equilibrium allocations in imperfect markets relative to efficient allocations (using graphs where appropriate) and why these markets are inefficient.	141-145, 277, 299-301
b. Calculate (using graphs where appropriate) the deadweight loss resulting from the production of a non-efficient quantity.	299-301
POL-2.C.1 Equilibrium allocations can deviate from efficient allocations due to situations such as monopoly; oligopoly; monopolistic competition; negative and positive externalities in production or consumption; asymmetric information; and insufficient production of public goods.	189-191, 215, 295-296, 299-300, 324-325, 331, 339-340
POL-2.C.2 Producing any non-efficient quantity results in deadweight loss.	299-302
TOPIC 6.2 Externalities	
POL-3 Private incentives can fail to account for all socially relevant considerations.	
POL-3.A	
a. Define externalities.	188
b. Explain (using graphs where appropriate) how in the presence of externalities, private markets do not take into consideration social costs or social benefits.	189-193
POL-3.A.1 The socially optimal quantity of a good occurs where the marginal social benefit of consuming the last unit equals the marginal social cost of producing that last unit, thus maximizing total economic surplus.	189
POL-3.A.2 Externalities are either positive or negative and arise from lack of well-defined property rights and/or high transaction costs.	9, 188, 192, 221
POL-3.A.3 In the presence of externalities, rational agents respond to private costs and benefits and not to external costs and benefits.	187-193
POL-3.A.4 Rational agents have the incentive to free ride when a good is non-excludable.	210-212
POL-3.B Explain (using graphs where appropriate) how public policies address positive or negative externalities.	198

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Learning Objectives/Essential Knowledge	Where Addressed
POL-3.B.1 Policies that address positive or negative externalities include taxes/subsidies, environmental regulation, public provision, the assignment of property rights, and the reassignment of property rights through private transactions.	190-200
TOPIC 6.3 Public and Private Goods	
POL-3 Private incentives can fail to account for all socially relevant considerations.	
POL-3.C	
a. Define whether goods are rival and/or excludable.	210-212
b. Explain how the nature of rival and/or excludable goods influences the behavior of individuals and groups.	210-216
POL-3.C.1 Private goods are rival and excludable, and public goods are non-rival and non-excludable.	210-212
POL-3.C.2 Due to the free rider problem, private individuals usually lack the incentive to produce public goods, leaving government as the only producer.	212-213
POL-3.C.3 Governments sometimes choose to produce private goods, such as educational services, and to allow free access to them.	191
POL-3.C.4 Some natural resources are, by their nature, non-excludable and rival and therefore open access. Private individuals inefficiently overconsume such resources.	217-219
TOPIC 6.4 The Effects of Government Intervention in Different Market Structures	
POL-4 In imperfect markets, well-designed government policy can reduce waste.	
POL-4.A	
a. Define government policy interventions in imperfect markets.	110, 452
b. Explain (using graphs where appropriate) how government policies can alter market outcomes in perfectly and imperfectly competitive markets.	152-155, 191-192, 289-291, 308-311, 347-350
c. Calculate (using data from a graph or table as appropriate) changes in market outcomes resulting from government policies in perfectly competitive and imperfectly competitive markets.	The opportunity to address this objective exists. For example, see: 152-155, 191-192, 289-291, 308-311, 347-350
POL-4.A.1 Per-unit taxes and subsidies affect the total price consumers pay, net price firms receive, equilibrium quantity, consumer and producer surpluses, deadweight loss, and government revenue or cost. The impact of change depends on the price elasticity of demand and supply.	119-126, 152-155

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Learning Objectives/Essential Knowledge	Where Addressed
POL-4.A.2 Lump-sum taxes and lump-sum subsidies do not change either marginal cost or marginal benefit; only fixed costs will be affected.	233-234
POL-4.A.3 Binding price ceilings and floors affect prices and quantities differently depending on the market structures (perfect competition, monopoly, monopolistic competition, and monopsony) and the price elasticities of supply and demand.	110-116
POL-4.A.4 Government intervention in imperfect markets can increase efficiency if the policy correctly addresses the incentives that led to the market failure.	306-311
POL-4.A.5 Government can use price regulation to address inefficiency due to monopoly.	309-310
POL-4.A.6 A natural monopoly will require a lumpsum subsidy to produce at the allocatively efficient quantity.	290-291, 308-310
POL-4.A.7 Governments use antitrust policy in an attempt to make markets more competitive.	308-309
TOPIC 6.5 Inequality	
POL-5 Market outcomes can result in income inequality.	
POL-5.A Define measures of economic inequality in income and wealth.	398-402
POL-5.A.1 Income levels and poverty rates vary greatly both across and within groups (e.g., age, gender, race) and countries.	402, 405
POL-5.A.2 The Lorenz curve and Gini coefficient are used to represent the degree of inequality in distributions and to compare distributions across different countries, policies, or time periods.	This Essential Knowledge is not directly addressed in this edition of <i>Principles of Economics</i> .
POL-5.B Explain sources of income and wealth inequality.	402, 410
POL-5.B.1 Each factor of production receives the value of its marginal product, which can contribute to income inequality.	The opportunity to address this Essential Knowledge exists. For example, see: 410-411
POL-5.B.2 Sources of income and wealth inequality include differences in tax structures (progressive and regressive tax structures), human capital, social capital, inheritance, effects of discrimination, access to financial markets, mobility, and bargaining power within economic and social units (firms, labor unions, and families).	380-387, 510

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