

CPS Benchmark Assessment - Winter 2006 - Grade 7

This table is a resource created to expand students' understanding of the concepts covered by the CPS Benchmark Assessment. Benchmark questions and related concepts are listed in columns 1 and 2. Column 3 displays the state learning goal related to the concept. Column 4 displays the path students follow on <http://countdown.luc.edu> to access movies relevant to the concept covered by the question. Instructional movies can be viewed FREE of charge as many times as a student desires. (NCTM standards are in the left margin of the Countdown homepage → their subcategories are shown underneath → these link to lists of movie titles.)

Question #	Concept	State Learning Goal #	NCTM Standard → Category → Movie Title
1	Correlation	10	<ul style="list-style-type: none"> • Data Analysis & Probability → Graphs → Scatter Plot on the Computer • Data Analysis & Probability → Graphs → Scatter Plot: Creating* • Data Analysis & Probability → Graphs → Scatter Plot: Decoding
2	Estimation	6	<ul style="list-style-type: none"> • Number & Operations → Estimation → Countdown Activity: Using "Counting on Frank"* • Number & Operations → Estimation → Using "Counting on Frank"*
3	Multiplication of integers	6	<ul style="list-style-type: none"> • Number & Operations → Integers → Rules for Multiplication & Division • Number & Operations → Integers → Integer Challenge Review: Multiplication & Division*
4	Measuring length (cm)	7	<ul style="list-style-type: none"> • Measurement → Metric & Customary Units → Optical Illusions: Centimeters • Measurement → Metric & Customary Units → Surface Area: Centimeters
5	Solving inequalities	8	<ul style="list-style-type: none"> • Algebra → Inequalities & Graphing → Intro to Inequalities: Part 1 • Algebra → Inequalities & Graphing → Intro to Inequalities: Part 2 • Algebra → Equations & Graphing → Graphing Inequalities • Algebra → Inequalities & Graphing → Graphing Inequalities: Part 1* • Algebra → Inequalities & Graphing → Graphing Inequalities: Part 2
6	Square numbers	8, 9	<ul style="list-style-type: none"> • Geometry → Two-Dimensional Shapes → Square Number Pattern* • Algebra → Patterns → Square Number Sequence* • Geometry → Two-Dimensional Shapes → Square Number Table • Geometry → Two-Dimensional Shapes → Square Number Computer Spreadsheet
7	Converting seconds to days	7	<ul style="list-style-type: none"> • Measurement → Time → Intro to Time • Measurement → Time → Age in Minutes on the Computer
8	Similar polygons: solving for unknown side	6, 9	<ul style="list-style-type: none"> • Number & Operations → Proportion & Percent → Proportions: Similar Figures* • Geometry → Congruence & Similarity → Similar Figures: Concept Development • Geometry → Congruence & Similarity → Similar Figures: Cross Multiplication

* indicates an accompanying downloadable worksheet available <http://COUNTDOWN.LUC.EDU>

CPS Benchmark Assessment - Winter 2006 - Grade 7

			<ul style="list-style-type: none"> • Geometry → Congruence & Similarity → Similar Figures: Explanation • Geometry → Congruence & Similarity → Similar Figures: Illustrated • Geometry → Congruence & Similarity → Similar Figures: Proof • Geometry → Congruence & Similarity → Similar Figures: Ratio • Geometry → Congruence & Similarity → Similar Figures: Vocabulary • Geometry → Congruence & Similarity → Similar Polygons on the Computer
9	Scale drawings	7	<ul style="list-style-type: none"> • Measurement → Scale → Scale: Drawing* • Measurement → Scale → Scale: Perspective • Measurement → Scale → Scale: Vocabulary
10	Simplification	8	<ul style="list-style-type: none"> • Algebra → Simplification → As Simple as 1 - 2 - 3* • Algebra → Simplification → Simplification 1* • Algebra → Simplification → Simplification 2*
11	Ordered pairs	8	<ul style="list-style-type: none"> • Algebra → Coordinate Geometry → Intro to the Coordinate Plane* • Algebra → Coordinate Geometry → Reading and the Coordinate Plane • Algebra → Coordinate Geometry → Tic-Tac-Toe: Part 1 • Algebra → Coordinate Geometry → Tic-Tac-Toe: Part 2
12	Correlation	10	<ul style="list-style-type: none"> • Data Analysis & Probability → Graphs → Scatter Plot on the Computer • Data Analysis & Probability → Graphs → Scatter Plot: Creating* • Data Analysis & Probability → Graphs → Scatter Plot: Decoding
13	Common factors/least common multiple	6, 7	<ul style="list-style-type: none"> • Number & Operations → Whole Numbers → Finding Factors of 126* • Measurement → Area & Perimeter → Solving Rectangle Riddles with Factors • Number & Operations → Whole Numbers → Table of Factors* • Extended Response → Number & Operations → Common Multiples on the Computer • Number & Operations → Whole Numbers → Divisibility Rules* • Extended Response → Number & Operations → Drawing Common Multiples on the Computer • Extended Response → Number & Operations → Finding Common Multiples* • Number & Operations → Whole Numbers → Multiples* • Extended Response → Number & Operations → Venn Diagrams*
14	Algebraic expressions	8	<ul style="list-style-type: none"> • Algebra → Variables → Countdown Challenge: The Language of Algebra* • Algebra → Variables → Translating English to Algebra • Algebra → Variables → Generating Equations: Part 1 • Algebra → Variables → Generating Equations: Part 2 • Algebra → Variables → Generating Equations: Part 3

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CPS Benchmark Assessment - Winter 2006 - Grade 7

15	Multiplication of integers	6	<ul style="list-style-type: none"> • Number & Operations → Integers → Rules for Multiplication & Division • Number & Operations → Integers → Integer Challenge Review: Multiplication & Division*
16	Probability	10	<ul style="list-style-type: none"> • Data Analysis & Probability → Probability → Probability Formula* • Data Analysis & Probability → Probability → Probability Using the Alphabet* • Data Analysis & Probability → Probability → Probability Using Pictures* • Data Analysis & Probability → Probability → Probability Using Gumballs
17	Solids	9	<ul style="list-style-type: none"> • Geometry → Three-Dimensional Shapes → Faces, Edges & Vertices*
18	Inverse	8	<i>No movie available at this time.</i>
19	Supplementary angles	9	<ul style="list-style-type: none"> • Geometry → Lines & Angles → Complementary/Supplementary Angles: Computation • Geometry → Lines & Angles → Complementary/Supplementary Angles: Definition • Geometry → Lines & Angles → Complementary/Supplementary Angles: Measuring
20	Surface area	7	<ul style="list-style-type: none"> • Measurement → Metric & Customary Units → Surface Area Puzzle • Measurement → Metric & Customary Units → Surface Area: Centimeters • Measurement → Metric & Customary Units → Surface Area: Inches • Measurement → Solids → Volume & Surface Area: Part 2*
21	Surface area	7	<ul style="list-style-type: none"> • Measurement → Metric & Customary Units → Surface Area Puzzle • Measurement → Metric & Customary Units → Surface Area: Centimeters • Measurement → Metric & Customary Units → Surface Area: Inches • Measurement → Solids → Volume & Surface Area: Part 2*
22	Graphs of linear equations	8	<ul style="list-style-type: none"> • Algebra → Equations & Graphing(*)
23	Multiplication of fractions	6	<i>No movie available at this time.</i>
24	Solving inequalities	8	<ul style="list-style-type: none"> • Algebra → Inequalities & Graphing → Intro to Inequalities: Part 1 • Algebra → Inequalities & Graphing → Intro to Inequalities: Part 2 • Algebra → Equations & Graphing → Graphing Inequalities • Algebra → Inequalities & Graphing → Graphing Inequalities: Part 1* • Algebra → Inequalities & Graphing → Graphing Inequalities: Part 2
25	Nets	9	<ul style="list-style-type: none"> • Geometry → Three-Dimensional Shapes → Polyhedra Nets 1 * • Geometry → Three-Dimensional Shapes → Polyhedra Nets 2 *

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CPS Benchmark Assessment - Winter 2006 - Grade 7

			<ul style="list-style-type: none"> • Geometry → Three-Dimensional Shapes → Polyhedra Nets on the Computer: 1 • Geometry → Three-Dimensional Shapes → Polyhedra Nets on the Computer: 2
26	Square Root	6, 8	<ul style="list-style-type: none"> • Geometry → Two-Dimensional Shapes → Finding Square Roots • Geometry → Two-Dimensional Shapes → Square Roots on the Computer
27			
28	Percent	6	<ul style="list-style-type: none"> • Number & Operations → Proportion & Percent(*)
29	Perimeter	7	<ul style="list-style-type: none"> • Extended Response → Measurement Schoolyard Perimeter: Solution* • Extended Response → Measurement Schoolyard Perimeter: Explanation* • Extended Response → Measurement Area & Perimeter: Solution • Extended Response → Measurement Area & Perimeter: Explanation
30			
31	Graphs of linear equations	8	<ul style="list-style-type: none"> • Algebra → Equations & Graphing(*)
32	Tree diagram	6	<ul style="list-style-type: none"> • Number & Operations → Number Theory → Fundamental Counting Principle on the Computer: Tree Diagram

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