

CPS Benchmark Assessment - Spring 2008 - Grade 6

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	Fundamental counting principle	6	<ul style="list-style-type: none"> • Extended Response → Number & Operations → Pizza Toppings: Solution • Extended Response → Number & Operations → Pizza Toppings: Explanation • Number & Operations → Number Theory → Fundamental Counting Principle: Part 1 • Number & Operations → Number Theory → Fundamental Counting Principle: Part 2 • Number & Operations → Number Theory → Countdown Activity: Fundamental Counting Principle* • Number & Operations → Number Theory → Fundamental Counting Principle on the Computer: Graphics 1 • Number & Operations → Number Theory → Fundamental Counting Principle on the Computer: Graphics 2 • Number & Operations → Number Theory → Fundamental Counting Principle on the Computer: Tree Diagram • Number & Operations → Number Theory → Fundamental Counting Principle with Playing Cards • Number & Operations → Number Theory → Fundamental Counting Principle with Telephone Numbers
2	Percent of	6	<ul style="list-style-type: none"> • Number & Operations → Proportions & Percents → "Percent of": Part 1 • Number & Operations → Proportions & Percents → "Percent of": Part 2
3	Polygons, Angles	9	<ul style="list-style-type: none"> • Geometry → Two Dimensional Shapes → Polygons • Geometry → Two Dimensional Shapes → Concept Development Rectangles
4	Reading tables	10	<ul style="list-style-type: none"> • Connections → Test Preparation → Sample Problem- Interpreting Data
5	Relationship between x and y	8	<ul style="list-style-type: none"> • Connections → Test Preparation → Sample Problem- Matching Equation to Data

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

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6	Area	7	<ul style="list-style-type: none"> • Measurement → Area & Perimeter → Formula: Area of a Rectangle Part 1 • Measurement → Area & Perimeter → Formula: Area of a Rectangle Part 2 • Measurement → Area & Perimeter → Formula: Area of a Rectangle Part 3* • Measurement → Area & Perimeter → Formula: Area of a Triangle* • Measurement → Games & Puzzles → Comparing Areas • Extended Response → Measurement → Comparing Areas: Parallelogram & Triangle • Extended Response → Measurement → Comparing Areas: Parallelogram & Triangle on the Computer
7	Transformations	9	<ul style="list-style-type: none"> • Geometry → Congruence & Similarity → Transformations: Part 1 • Geometry → Congruence & Similarity → Transformations: Part 2 • Geometry → Congruence & Similarity → Transformations on the Computer: Part 1 • Geometry → Congruence & Similarity → Transformations on the Computer: Part 2 • Geometry → Congruence & Similarity → Transformations on the Computer: Part 3
8	Ordered pairs	9	<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 • Algebra → Coordinate Geometry → Coordinate Plane Practice
9	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
10	Scale	7	<ul style="list-style-type: none"> • Measurement → Scale → Map Scale
11	Simplify fractions	6	<ul style="list-style-type: none"> • Number & Operations → Fractions → Comparing Equal Fractions • Number & Operations → Ratio → Writing Ratios: Intro* • Number & Operations → Ratio → Writing Ratios
12	Simple word problems	6	<ul style="list-style-type: none"> • Number & Operations → Whole Numbers → Computation Vocabulary* • Number & Operations → Whole Numbers → Word Problems & Comparisons* • Extended Response → Number & Operations → School Supplies Solution: Part 1 • Extended Response → Number & Operations → School Supplies Solution: Part 2

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13	Classify angles	9	<ul style="list-style-type: none"> • Geometry → Lines & Angles → Classifying Angles* • Algebra → Algebra 1 → Trapezoids- Defined
14	Compare Fractions	6	<ul style="list-style-type: none"> • Number & Operations → Fractions → Countdown Challenge: Using a New Denominator* • Number & Operations → Fractions → Adding Fractions with Different Denominators* • Number & Operations → Fractions → Comparing Equal Fractions
15	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
16	Two step word problem	6	<ul style="list-style-type: none"> • Number & Operations → Whole Numbers → Computation Vocabulary* • Number & Operations → Whole Numbers → Word Problems & Comparisons* •
17	Scale	7	<ul style="list-style-type: none"> • Measurement → Scale → Scale: Vocabulary • Measurement → Scale → Scale: Perspective • Measurement → Scale → Scale: Drawing* • Measurement → Scale → The Secret to Scale • Measurement → Scale → Using Proportion for Scale Drawings •
18	Angles	9	<ul style="list-style-type: none"> • Geometry → Two-Dimensional Shapes → Naming Triangles: Sides* • Geometry → Two-Dimensional Shapes → Naming Triangles: Angles* • Geometry → Two-Dimensional Shapes → Triangle Vocabulary Review • Geometry → Two Dimensional Shapes → Sum of Interior Angles: Triangle Part 1 • Geometry → Two Dimensional Shapes → Sum of Interior Angles: Triangle Part 2
19	Two step word problems	6	<ul style="list-style-type: none"> • Number & Operations → Whole Numbers → Computation Vocabulary* • Number & Operations → Whole Numbers → Word Problems & Comparisons* • Number & Operations → Whole Numbers → Sample Three Step Problem
20	Addition of fractions	6	<ul style="list-style-type: none"> • Number & Operations → Fractions → Adding & Subtracting Fractions: Part 1 • Number & Operations → Fractions → Adding & Subtracting Fractions: Part 2

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21	Circle graphs	10	<ul style="list-style-type: none"> • Data Analysis & Probability → Graphs → Reading Circle Graphs* • Data Analysis & Probability → Graphs → Naming Angles on a Circle Graph • Data Analysis & Probability → Graphs → Calculating Angles for a Circle Graph • Data Analysis & Probability → Graphs → Creating a Circle Graph
22	Sum of angles of a triangle	9	<ul style="list-style-type: none"> • Geometry → Two-Dimensional Shapes → Naming Triangles: Sides* • Geometry → Two-Dimensional Shapes → Naming Triangles: Angles* • Geometry → Two-Dimensional Shapes → Triangle Vocabulary Review • Geometry → Two Dimensional Shapes → Sum of Interior Angles: Triangle Part 1 • Geometry → Two Dimensional Shapes → Sum of Interior Angles: Triangle Part 2
23	Area	7	<ul style="list-style-type: none"> • Measurement → Area & Perimeter → Formula: Area of a Triangle*
24	Subtraction of fraction	6	<ul style="list-style-type: none"> • Numbers & Operations → Fractions → Subtracting Fractions From One
25	Angle measurement	9	<ul style="list-style-type: none"> • Geometry → Lines & Angles → Classifying Angles* • Geometry → Lines & Angles → Right, Obtuse & Straight Angles Using Word
26	Bar graph	10	<ul style="list-style-type: none"> • Data Analysis & Probability → Graphs → Pictogram, Bar & Line* • Data Analysis & Probability → Graphs → Bar Graph on the Computer • Extended Response → Data Analysis & Probability → Criteria & Rubric Bar Graphs: Part 1 • Extended Response → Data Analysis & Probability → Criteria & Rubric Bar Graphs: Part 2 • Extended Response → Data Analysis & Probability → Criteria & Rubric Bar Graphs: Computer
27	Function table	8	<ul style="list-style-type: none"> • Algebra → Algebra 1 → Function Tables • Algebra → Algebra 1 → Using Functions • Algebra → Algebra 1 → Guess My Function • Algebra → Algebra 1 → Countdown Challenge: Functions • Algebra → Algebra 1 → Functions on the Computer • Algebra → Algebra 1 → Graphing Functions on the Computer
28	Inequalities	8	<ul style="list-style-type: none"> • Algebra → Inequalities & Graphing → Intro to Inequalities Part 1 • Algebra → Inequalities & Graphing → Intro to Inequalities Part 2
29	Multi-step word problems	6	<ul style="list-style-type: none"> • Number & Operations → Whole Numbers → Sample Three Step Problem • Number & Operations → Whole Numbers → Sample Four Step Problem

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30	Solving equations	8	<ul style="list-style-type: none"> • Algebra → Equations & Graphing → Equation Basics • Algebra → Equations & Graphing → Addition Property of Equality • Algebra → Variables → Variables Defined
31	Circle graphs	10	<ul style="list-style-type: none"> • Data Analysis & Probability → Graphs → Reading Circle Graphs* • Data Analysis & Probability → Graphs → Naming Angles on a Circle Graph • Data Analysis & Probability → Graphs → Calculating Angles for a Circle Graph • Data Analysis & Probability → Graphs → Creating a Circle Graph
32	Equations	8	<ul style="list-style-type: none"> • Algebra → Equations & Graphing → Solving Coin Riddles: Part 1 • Algebra → Equations and Graphs → Solving Coin Riddles: Part 2 • Algebra → Equations and Graphing → Writing Coin Riddles*
33	Equations	8	<ul style="list-style-type: none"> • Algebra → Equations & Graphing → Equation Basics • Algebra → Equations & Graphing → Addition Property of Equality • Algebra → Variables → Variables Defined
34	Ratio	6	<ul style="list-style-type: none"> • Number & Operations → Ratio → Writing Ratios: Intro* • Number & Operations → Ratio → Writing Ratios
35	Order of operations	8	<ul style="list-style-type: none"> • Number & Operations → Whole Numbers → Order of Operation • Number & Operations → Whole Numbers → Order of Operation: Word Problem • Number & Operations → Whole Numbers → Order of Operation: Word Problem Solution
36	Proportion	6	<ul style="list-style-type: none"> • Number & Operations → Ratio → Writing Ratios: Intro* • Number & Operations → Ratio → Writing Ratios • Number & Operations → Proportions & Percent → Proportions: Solving for n
37	Prime numbers	6	<ul style="list-style-type: none"> • Number & Operations → Number Theory → Sieve of Eratosthenes: Part 1* • Number & Operations → Number Theory → Sieve of Eratosthenes: Part 2 • Number & Operations → Number Theory → Prime Number Graphics* • Number & Operations Number Theory → Prime Number Definition
38	Volume of prism	7	<ul style="list-style-type: none"> • Measurement → Solids → Volume: Cylinders & Prisms*
39	Graphing inequalities	8	<ul style="list-style-type: none"> • Algebra → Inequalities & Graphing → Graphing Inequalities: Part 1* • Algebra → Inequalities & Graphing → Graphing Inequalities: Part 2
40	Circumference	7	<ul style="list-style-type: none"> • Measurement → Circles & Angles → Circumference Problems • Measurement → Circles & Angles → Circumference of a Circle
41	Time	7	<ul style="list-style-type: none"> • Measurement → Time → Age in Minutes on the Computer

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42	Nets	9	<ul style="list-style-type: none"> • Geometry → Three-Dimensional Shapes → Polyhedra Nets 1 * • Geometry → Three-Dimensional Shapes → Polyhedra Nets 2 * • Geometry → Three-Dimensional Shapes → Polyhedra Nets on the Computer: 1 • Geometry → Three-Dimensional Shapes → Polyhedra Nets on the Computer: 2
43	Area and perimeter of a square	7	<ul style="list-style-type: none"> • Measurement → Area & Perimeter → Formula: Area of a Rectangle Part 1 • Measurement → Area & Perimeter → Formula: Area of a Rectangle Part 2 • Measurement → Area & Perimeter → Formula: Area of a Rectangle Part 3* • Measurement → Area & Perimeter → Formula: Area of a Triangle* • Measurement → Games & Puzzles → Comparing Areas • Extended Response → Measurement → Comparing Areas: Parallelogram & Triangle • Extended Response → Measurement → Comparing Areas: Parallelogram & Triangle on the Computer
44	Radius & Diameter	9	<ul style="list-style-type: none"> • Geometry → Two-Dimensional Shapes → Defining a Circle • Geometry → Two-Dimensional Shapes → Circle Vocabulary* • Measurement → Circles & Angles → Illustrating Circle Vocabulary
45	Mean	10	<ul style="list-style-type: none"> • Data Analysis & Probability → Statistics → Vocabulary Mean* • Data Analysis & Probability → Statistics → Mean* • Data Analysis & Probability → Statistics → Mean: Part 2 • Data Analysis & Probability → Statistics → A Mean Card Game • Data Analysis & Probability → Statistics → A Mean Word Problem*