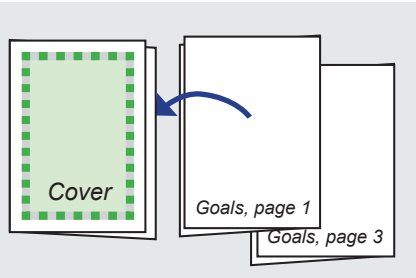


Common Core Standards for Mathematical Practice

- MP1:** Make sense of problems and persevere in solving them.
- MP2:** Reason abstractly and quantitatively.
- MP3:** Construct viable arguments and critique the reasoning of others.
- MP4:** Model with mathematics.
- MP5:** Use appropriate tools strategically.
- MP6:** Attend to precision.
- MP7:** Look for and make use of structure.
- MP8:** Look for and express regularity in repeated reasoning.

Making a Leaflet

Fold all three sheets in half as shown. Put goal pages 1-4 within cover sheet and staple along left edge.



Grade 8 Math "I Can" Goals Leaflet (Published 08/08/2014 & Updated 07/22/2020)
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Name _____

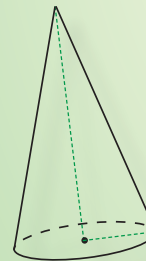
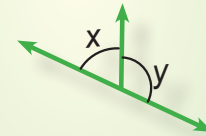
COMMON CORE STATE STANDARDS

Grade 8 Math

Goals Checklist

$$7.08 \div 1,000$$

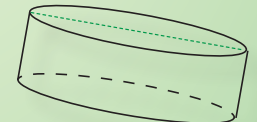
$$\sqrt{121}$$



$$-x - 4 = -12$$



$$2^{-3}$$



Courtesy of K8 Math Sense for 2020-2021

Name _____

Class _____ Date _____



For each goal that has been mastered, mark the box and write the date.



EXPRESSIONS AND EQUATIONS

1 Work with radicals and integer exponents.

1. I can simplify and evaluate numerical expressions with integer exponents. _____
2. I can develop and apply properties of exponents. _____
3. I can use square root and cube root symbols. _____
4. I can evaluate square roots and cube roots. _____
5. I can convert between standard notation and scientific notation. _____
6. I can use scientific notation to compare relative sizes of numbers. _____
7. I can perform operations on numbers in scientific notation. _____
8. I can use scientific notation to solve problems. _____
9. I can convert measurement results to appropriate units. _____

2 Understand the connections between proportional relationships, lines, and linear equations.

1. I can graph proportional relationships. _____
2. I can compare two representations of a proportional relationship. _____
3. I can use similar triangles to verify that a line has constant slope. _____
4. I can relate linear equations to slopes and intercepts. _____

Name _____

3 Analyze and solve linear equations and pairs of simultaneous linear equations.

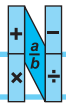
1. I can simplify and solve linear equations by writing equivalent forms. _____
2. I can identify or write equations with 0, 1, or infinitely many solutions. _____
3. I can simplify and solve linear equations with rational coefficients. _____
4. I can identify the solution to a system of two linear equations as the intersection point. _____
5. I can solve systems of two linear equations algebraically. _____
6. I can estimate the solution to two linear equations by graphing. _____
7. I can solve problems involving systems of two linear equations. _____

4 **FUNCTIONS** Define, evaluate, and compare functions.

1. I can understand that a function is a rule. _____
2. I can compare two representations of a function. _____
3. I can decide if a function is linear or non-linear. _____

5 **FUNCTIONS** Use functions to model relationships between quantities.

1. I can identify rate of change from a graph, table, or description. _____
2. I can identify initial value of a function from a graph, table, or description. _____
3. I can write a function from the rate of change and initial value. _____
4. I can describe features of a non-linear function from its graph. _____
5. I can sketch a graph from a verbal description of its features. _____



THE NUMBER SYSTEM

1 Know that there are numbers that are not rational, and approximate them by rational numbers.

- 1. I can identify rational and irrational numbers. _____
- 2. I can convert repeating decimals to rational numbers. _____
- 3. I can find approximations for irrational numbers. _____



GEOMETRY

1 Understand congruence and similarity using physical models, transparencies, or geometry software.

- 1. I can identify congruent parts in rotations, reflections, and translations. _____
- 2. I can identify transformations that move a figure onto a congruent figure. _____
- 3. I can use coordinates to describe translations, reflections, and rotations. _____
- 4. I can use coordinates to describe dilations. _____
- 5. I can compare ratios of side lengths to decide if two figures are similar. _____
- 6. I can identify the scale factor that enlarges or reduces a figure to match a similar figure. _____
- 7. I can identify transformations that move a figure onto a similar figure. _____
- 8. I can justify and calculate angle measures in triangles and line figures. _____
- 9. I can justify the angle-angle criterion of similar triangles. _____

2 Understand and apply the Pythagorean Theorem.

- 1. I can explain a proof of the Pythagorean Theorem and its converse. _____
- 2. I can use the Pythagorean Theorem to find lengths. _____
- 3. I can use the Pythagorean Theorem to find distance between points. _____

3 Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.

- 1. I can apply the formula for volume of a cone. _____
- 2. I can apply the formula for volume of a cylinder. _____
- 3. I can apply the formula for volume of a sphere. _____
- 4. I can apply formulas to find volumes of combined solids. _____



STATISTICS AND PROBABILITY

1 Investigate patterns of association in bivariate data.

- 1. I can construct scatter plots. _____
- 2. I can interpret scatter plots. _____
- 3. For data that appear to be linear, I can estimate a line of best fit. _____
- 4. I can informally assess the fit of a linear model. _____
- 5. I can interpret a linear model for real-world data. _____
- 6. I can compare frequencies and relative frequencies from two-way tables. _____