5th ->6th Advanced MathSummer Assignments for Mrs. Rowland

All of the objectives are from the 6th Grade IXL.COM

The following list of objectives is required. However, if the student completes ALL (not just the ones below) of the objectives from the 6th grade IXL (87 smart score), they will be rewared with a special lunch at Salsas with Mrs. Rowland.

Please complete the objectives to a score of 87 smart score. But parents, I'm not trying to ruin their summer! If they have spent more time than you think is reasonable on an objective, please make them stop! This excludes those students trying to get the special Salsas lunch!

FYI, the students have been working on some of these objectives throughout the year, but only to 85 smart score. Now I'm asking to go to an 87 smart score.

Please don't hesitate to contact me if you have any problems or concerns.
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Exponents and square roots

1. **D.1** Write multiplication expressions using exponents
2. **D.2** Evaluate exponents
6. **D.6** Understanding negative exponents
7. **D.7** Evaluate negative exponents
10. **D.10** Square roots of perfect squares

Number theory

1. **E.1** Convert between standard and scientific notation
2. **E.2** Compare numbers written in scientific notation

4. **E.4** Identify factors
5. **E.5** Prime factorization
6. **E.6** Prime factorization with exponents
7. **E.7** Greatest common factor
8. **E.8** Least common multiple

Decimals

5. **F.5** Put decimal numbers in order

Add and subtract decimals

1. **G.1** Add and subtract decimal numbers

Multiply and divide decimals

2. **H.2** Multiply decimals
4. **H.4** Divide decimals by whole numbers
6. **H.6** Multiply and divide decimals by powers of ten
7. **H.7** Division with decimal quotients

Fractions and mixed numbers

6. **I.6** Least common denominator
9. **I.9** Convert between improper fractions and mixed numbers
10. **I.10** Convert between decimals and fractions or mixed numbers

Add and subtract fractions

3. **J.3** Add and subtract fractions with unlike denominators
6. **J.6** Add and subtract mixed numbers

Multiply fractions

2. **K.2** Fractions of whole numbers II
6. **K.6** Multiply two fractions
8. **K.8** Multiply three or more fractions and whole numbers
10. **K.10** Multiply mixed numbers and whole numbers
11. **K.11** Multiply mixed numbers

13. K.13 Multiply three or more mixed numbers, fractions, and/or whole numbers

Divide fractions

2. L.2 Reciprocals

3. L.3 Divide whole numbers and unit fractions

5. L.5 Divide fractions

7. L.7 Divide fractions and mixed numbers

Integers

1. M.1 Understanding integers

2. M.2 Integers on number lines

3. M.3 Absolute value and opposite integers

4. M.4 Graph integers on horizontal and vertical number lines

5. M.5 Compare integers

6. M.6 Put integers in order

Operations with integers

2. N.2 Add integers

4. N.4 Subtract integers

9. N.9 Multiply integers

11. N.11 Divide integers

Mixed operations

1. O.1 Add, subtract, multiply, or divide two whole numbers

3. O.3 Evaluate numerical expressions involving whole numbers

4. O.4 Add, subtract, multiply, or divide two decimals

6. O.6 Evaluate numerical expressions involving decimals

7. O.7 Add, subtract, multiply, or divide two fractions

10. O.10 Add, subtract, multiply, or divide two integers

Ratios and rates

3. R.3 Identify equivalent ratios

4. **R.4** Write an equivalent ratio
10. **R.10** Do the ratios form a proportion?
11. **R.11** Solve the proportion

Percents

1. **S.1** Convert between percents, fractions, and decimals

Units of measurement

7. **T.7** Convert and compare metric units

Coordinate plane

1. **X.1** Objects on a coordinate plane
2. **X.2** Graph points on a coordinate plane
3. **X.3** Quadrants

Expressions and properties

6. **Y.6** Identify terms and coefficients
8. **Y.8** Properties of addition
9. **Y.9** Properties of multiplication
10. **Y.10** Multiply using the distributive property

One-variable equations

1. **Z.1** Does x satisfy an equation?
2. **Z.2** Which x satisfies an equation?

One-variable inequalities

2. **AA.2** Graph inequalities on number lines
3. **AA.3** Write inequalities from number lines
4. **AA.4** Solve one-step inequalities
5. **AA.5** Graph solutions to one-step inequalities

Two-dimensional figures

1. **CC.1** Identify and classify polygons
2. **CC.2** Measure and classify angles

4. **CC.4** Classify triangles
5. **CC.5** Identify trapezoids
6. **CC.6** Classify quadrilaterals
7. **CC.7** Graph triangles and quadrilaterals
8. **CC.8** Find missing angles in triangles
9. **CC.9** Find missing angles in quadrilaterals
11. **CC.11** Lines, line segments, and rays
12. **CC.12** Name angles
13. **CC.13** Complementary and supplementary angles
14. **CC.14** Transversal of parallel lines
16. **CC.16** Parts of a circle
17. **CC.17** Central angles of circles

Geometric measurement

1. **FF.1** Perimeter
2. **FF.2** Area of rectangles and squares
3. **FF.3** Area of triangles