

## Grade 7 Curriculum 2019-2020

Concepts covered for the 7<sup>th</sup> grade.

### Chapter 1: Integers and Rational Numbers.

- Comparing and ordering integers
- Adding and subtracting integers
- Multiplying and dividing integers
- Fractions and decimals
- Rational numbers
- Adding and subtracting rational numbers
- Multiplying and dividing rational numbers

### Chapter 2: Equations.

- Evaluating and writing algebraic expressions
- Simplifying expressions
- Solving one-step equations
- Solving two-step equations
- Solving equations using the distributive property

### Chapter 3: Inequalities.

- Graphing and writing inequalities
- Solving inequalities by adding and subtracting
- Solving inequalities by multiplying and dividing
- Solving two-step inequalities

### Chapter 4: Ratios, Rates, and proportions.

- Ratios
- Unit rates and proportional reasoning
- Proportions
- Solving proportions
- Similar figures
- Maps and scale drawings
- Proportional relationships

### Chapter 5: Percents.

- Percent, fractions, and decimals
- Solving percent using proportions
- Solving percent using equations
- Applications of percent
- Simple interest
- Finding percent of change

## **Chapter 6: Geometry and Area**

- Angle measures
- Area of parallelogram

- Area of triangle
- Areas of other figures
- Circumference and area of circles

## **Chapter 7: Surface area and volume.**

- Three- Dimensional figures
- Surface area of prisms and cylinders

- Volume of prisms and cylinders
- Cross sections

## **Chapter 8: Analyzing Data.**

- Random samples and surveys
- Estimating population size

- Inferences
- Data variability

## **Chapter 9: Probability.**

- Probability
- Experimental probability
- Sample spaces

- Compound events
- Simulating compound events

The Common Core State Standards identify a limited number of topics at each grade level, allowing enough time for students to achieve fluency, if not mastery of these concepts. The subsequent year of study builds on the concepts of the previous year.

Students are expected to have achieved fluency with the following:

Operations involving Whole Numbers (+, -, ×, ÷)

Operations involving Decimals (+, -, ×, ÷)

Operations involving Fractions (+, -, ×, ÷)

I have attached some worksheets involving decimals and fractions. The students will be given a diagnostic test upon arrival in 7th grade to assess the above skills.

I will not be assessing operations with whole numbers since those skills are involved with operations with decimals. Students should have mastery of their times tables.

If a student needs more practice mastering the above skills, he/she should use the Khan Academy Program to improve those skills.

Mr. Hamel

Answer the following. Show your work.

(1)  $8.3 + 212.45 + 9$

(6)  $0.015 \times 0.16$

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(2)  $54 - 8.7$

(7)  $29.6 \div 8$

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(3)  $413.9 - 8$

(8)  $107.5 \div 0.25$

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(4)  $3.9 \times 0.54$

(9)  $4 \div 0.002$

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(5)  $2.8 \times 7$

(10)  $8\frac{1}{6} + 5\frac{1}{3}$

$$(11) 6 + 2\frac{5}{9}$$

$$(16) 8\frac{4}{5} + 5\frac{1}{3}$$

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$$(12) 4\frac{3}{4} + 3\frac{4}{5}$$

$$(17) 9\frac{1}{10} + \frac{6}{7}$$

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$$(13) 1\frac{5}{6} + 5\frac{3}{4}$$

$$(18) 3\frac{3}{8} + 4\frac{7}{9}$$

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$$(14) \frac{7}{9} + \frac{8}{12}$$

$$(19) 5\frac{3}{5} + 2\frac{7}{8}$$

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$$(15) 2\frac{3}{7} + 9\frac{2}{3}$$

$$(20) 9\frac{1}{2} + 10\frac{1}{2}$$

Name: \_\_\_\_\_ Homework Decimals and +, - fractions

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Answer the following. Show your work.

(1)  $54.39 + 8 + 2.7$

(6)  $0.045 \times 0.09$

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(2)  $34 - 0.34$

(7)  $6.46 \div 1.9$

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(3)  $72 - 9.306$

(8)  $6.3 \div 0.45$

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(4)  $4.23 \times 79$

(9)  $18 \div 0.005$

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(5)  $6.2 \times 0.58$

(10)  $8\frac{4}{7} + 2\frac{2}{3}$

$$(11) \quad 5\frac{1}{2} + 3\frac{5}{8}$$

$$(16) \quad 6\frac{3}{8} - 4$$

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$$(12) \quad 9 + \frac{7}{8}$$

$$(17) \quad 23\frac{2}{9} - 8\frac{5}{6}$$

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$$(13) \quad 7\frac{3}{4} - 2\frac{1}{6}$$

$$(18) \quad 7\frac{6}{11} - 2\frac{1}{3}$$

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$$(14) \quad 12\frac{1}{7} - 8\frac{2}{3}$$

$$(19) \quad 8\frac{4}{7} - 3\frac{8}{9}$$

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$$(15) \quad 4 - \frac{3}{5}$$

$$(20) \quad 5\frac{5}{9} - 1\frac{7}{8}$$

Answer the following. Show your work.

(1)  $9.4 + 312 + 24.16$

(6)  $1.38 \div 2.3$

(2)  $83.2 - 4.95$

(7)  $58.8 \div 0.14$

(3)  $7 - 0.7$

(8)  $3\frac{5}{8} + 2\frac{3}{4}$

(4)  $2.9 \times 3.4$

(9)  $7\frac{1}{9} + 2\frac{2}{3}$

(5)  $5.36 \times 8$

(10)  $8\frac{1}{5} - 2\frac{5}{6}$



$$(11) 14 - 7\frac{3}{7}$$

$$(16) \frac{15}{16} \times 1\frac{3}{5}$$

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$$(12) 8\frac{2}{5} \times \frac{15}{24}$$

$$(17) 1\frac{1}{6} \times \frac{5}{7}$$

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$$(13) 2\frac{2}{3} \times 2\frac{1}{4}$$

$$(18) 5\frac{2}{3} \times 1\frac{1}{2}$$

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$$(14) 3\frac{1}{5} \times \frac{3}{8}$$

$$(19) 4\frac{1}{2} \times 1\frac{2}{5}$$

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$$(15) 2\frac{2}{7} \times 1\frac{3}{4}$$

$$(20) 3\frac{1}{4} \times 2\frac{2}{3}$$

Name: \_\_\_\_\_ Homework Decimals and +, -, ×, ÷ fractions



Answer the following. Show your work.

(1)  $8.94 + 26.9 + 5$

(6)  $8.96 \div 1.6$

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(2)  $26 - 7.43$

(7)  $55.8 \div 0.18$

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(3)  $5 - 0.5$

(8)  $3 \div 0.015$

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(4)  $6.2 \times 0.37$

(9)  $7\frac{3}{4} + 2\frac{6}{7}$

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(5)  $0.009 \times 0.003$

(10)  $5 + \frac{2}{3}$

$$(11) \quad 8\frac{7}{8} - 2\frac{2}{5}$$

$$(16) \quad 4\frac{1}{2} \div 2\frac{7}{10}$$

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$$(12) \quad 6\frac{1}{2} - 4\frac{5}{6}$$

$$(17) \quad 6 \div \frac{3}{4}$$

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$$(13) \quad 9 - \frac{1}{12}$$

$$(18) \quad 3\frac{1}{3} \div \frac{4}{5}$$

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$$(14) \quad \frac{21}{25} \times \frac{5}{12}$$

$$(19) \quad \frac{7}{10} \div 1\frac{7}{8}$$

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$$(15) \quad 7\frac{1}{2} \times 3\frac{1}{3}$$

$$(20) \quad 8\frac{3}{4} \div 3\frac{4}{7}$$