Name: $\qquad$

## Homewonk Assignments

Module 1-The Number System Unit 2

| Standard | Description |
| :--- | :--- |
| 7.NS.A.2 | Apply and extend previous understandings of multiplication and division and of fractions to multiply <br> and divide rational numbers. <br> $\rightarrow$ <br> a: Understand that multiplication is extended from fractions to rational numbers by requiring <br> that operations continue to satisfy the properties of operations. <br> b: Understand that integers can be divided, provided that the divisor is not zero, and every <br> quotient of integers (with non-zero divisor) is a rational number. <br> c: Apply properties of operations as strategies to multiply and divide rational numbers. |
| 7.NS.A.3 | Solve real-world and mathematical problems involving the four operations with rational numbers. |


| Lesson <br> After FULLY completing a <br> lesson, check the box below. | I can... <br> After completing each lesson, you are on the right track if you can confidently state "I can..." |
| :---: | :--- |
| $\square \mathbf{1}$ | Multiply rational numbers. |
| $\square$ | Divide rational numbers. |
| $\square$ | Interpret products and quotients of rational numbers by describing real-world <br> contexts. |
| $\square$ | Solve and justify my answer when multiplying and dividing rational numbers. |

## Homework is due the following day, but you can always turn it in early!

| The skills and concepts that you learn in this packet will appear as your grade for the standards listed above. |  |
| :--- | :--- |
| A = 4 EXCEEDS | All questions have been attempted and have justification that proves and explains their solution. |
| B = 3 MEETS | Most questions have been attempted and have justification that proves and explains their solution. |
| C = 2 DEVELOPING | Some or all questions are attempted, but does not contain a justification or explanation for the solution. |
| D = 1 WELL BELOW | Few or none of the questions are attempted, and does not contain a justification or explanation for the solution. |

## Dear Students,

I know that math homework can be a DAUNTING task and sometimes it's hard to find the time to complete it. Please know that these assignments have been designed to help support your mathematical thinking - my goal is not to give you busy work. We will use homework to have conversations and practice in class the following day so it is really important that you try to complete it each night. If you need help, email me!

## Independent Practice Lesson 2.1

Solve the following problems using words, pictures and/or diagrams. Be sure to explain how you solved the problem (step by step) and justify your answer.
Multiplying Integers

1. $(-2) \cdot(-6)=$ $\qquad$

Explanation: $\qquad$
$\qquad$
$\qquad$
$\qquad$

## Multiplying Decimals

2. 0.0015 * (-0.125) $=$ $\qquad$

Explanation: $\qquad$
$\qquad$
$\qquad$
$\qquad$
Multiplying Fractions
3. $-\frac{7}{3} \cdot \frac{2}{24}=$ $\qquad$
Explanation: $\qquad$
$\qquad$
$\qquad$

Multiplying Mixed Numbers
4. $-2 \frac{7}{10} \cdot 3 \frac{5}{6}=$ $\qquad$
Explanation: $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Independent Practice Lesson 2.2
Solve the following problems and explain how you arrived at your answer.

1. $\frac{4}{5} \div \frac{-3}{5}$
2. $2 \frac{1}{4} \div \frac{2}{-3}$

Explanation:
3. $\frac{6}{15} \div \frac{3}{10}$

Explanation:
5. $-4 \frac{1}{2} \div \frac{9}{11}$

Explanation:
ExPLANATION:
4. $-3 \frac{7}{4} \div \frac{3}{5}$

6. $\frac{1}{8} \div \frac{2}{6}$

Explanation:
$\qquad$

## Independent Practice Lesson 2.3

| Instructions: Solve the following problems. Show and explain your work. Circle your final answer! |  |
| :--- | :--- |
| 1. Over a 6-week period, the price of a gallon of gas <br> increased by 18 cents by the end of the 6 weeks. What was <br> the average change per week? | 2. At 7pm the temperature was 40 degrees. If the <br> temperature dropped steadily at a rate of 6 degrees per <br> hour, what was the temperature at midnight? |

## Independent Practice Lesson 2.4

## Whole Numbers

Whole numbers are numbers that do not need to be represented with a fraction or decimal. Also, whole numbers cannot be negative. In other words, whole numbers are the counting numbers and zero.
Examples of whole numbers: 4, 952, 0, 73

1. Solve: $12-4^{*} 5+5=$

Explain how you solved Problem \#1 $\qquad$
$\qquad$

## Integers

Integers are whole numbers and their opposites. Therefore, integers can be negative.
Examples of integers: $12,-9,-8,10$
2. Solve: - 2-34 = $\qquad$
3. Solve: $-5-(-14)=$ $\qquad$
4. Solve: $\quad-12+27-4-(-17)=$ $\qquad$
5. Solve: $132-(-16)-34+(-13)=$ $\qquad$

## Rational Numbers

Rational numbers are numbers that can be expressed as a fraction of two integers.
Examples of rational numbers: - $2, \mathbf{0} \mathbf{0 . 3 3 3 3}, \mathbf{- 1 2 . 4}$
6. Solve: $3.25 \div 1 / 4=$ $\qquad$
7. Solve: $(-36 \div-4) * 3.2=$ $\qquad$

BONUS: Explore how many different ways you can show and solve Problems \#6 and \#7.
$\qquad$
$\qquad$

## Study Guide

Directions: Use the following guiding questions, enduring understandings, vocabulary and models, to make a visual study guide in the box below. Feel free to add information on the back or on a separate sheet of paper.

Unit 2 Study Guide

