**Topic 12 – Review Answer Key**

**Adding and Subtracting Fractions and Mixed Numbers with Like Dominators**

**Mathematician**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***12.1 – I can use models to add fractions with like denominators.***

**Add the following fractions. Simplify if possible.**

**1.**  **1/3 + 1/3 =**  **2/3**

**2**.  **2/5 + 1/5 =**  **3/5**

**3**. **1/6 + 1/6 =**  **2/6**

**4.** **1/5 + 3/5**  = **4/5**

***12.2– I can add fractions with like denominators and solve problems.***

**Add the following fractions. Simplify if possible.**

**5. 2/6 + 2/6 =**  **4/6 = 2/3**

**6. 3/8 + 5/8** = **8/8 = 1**

**7. 1/12 + 3/12**  = **4/12 = 1/3**

**8.** Jack, Marie, and Joe shared a whole pizza. Jack ate 3/12, Marie ate 2/12, and Joe ate 4/12 of the pizza. What fraction of the pizza did they eat?

**9/12 = 3/4 of the pizza**

***12.3– I can subtract fractions with like denominators.***

**Subtract the following fractions. Simplify if possible.**

**9. 2/3 – 1/3** = **1/3**

**10. 8/12 – 2/12** = **6/12 = 1/2**

**11. 7/10 – 4/10**  = **3/10**

**12.** Joan had 7/8 of a pound of almonds. She used 3/8 of a pound to make some cookies. How many pounds of almonds were left?

**4/8 = 1/2 pounds of almonds**

***12.4– I can subtract fractions with like fractions and solve problems.***

**Subtract the following fractions. Simplify if possible.**

**13. 80/100 – 40/100 =40/100 = 2/5**

**14. 11/12 – 2/12 – 1/12 =8/12 = 2/3**

**15. 3/8 – 1/8 = 2/8 = 1/4**

**16. A recipe for muffins calls for 1/3 cup of flour, and Ryan has 1 cup of flour. Does he have enough flour to make 2 batches of muffins? Explain.**

**Yes, 2/3 is less than 3/3 which is equal to 1 whole cup.**

***12.5– I can use the number line to add and subtract fractions with like denominators.***

A piece of ribbon is 8/12 of a foot in length. Then 3/12 of a foot is cut from the ribbon. How long is the remaining piece of ribbon? **5/12 of a piece of ribbon**

**Draw a number line for twelfths. Label a point at 8/12. Move 3 spaces to the left to show subtracting 3/12. Label a point at 5/12 to show that 8/12 – 3/12 = 5/12.**

**17.**

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Draw a number line to show the following equation. 7/12 – 4/12 = **3/12 = 1/4**

**18.**

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***12.6– I can identify and write mixed numbers as improper fractions and improper fractions as mixed numbers.***

Vocabulary

**A mixed number is a number that has whole number and a fractional part.**

**An improper fraction is a fraction in which the numerator is equal to or greater than the denominator.**

**19.** Sarah used 10/3 cups of water to make lemonade. Write 10/3 as a mixed number.

**3 1/3**

**Write the following improper fractions as mixed numbers.**

**20.** 6/3 = **2**

**21.** 7/2 = **3 1/2**

22. 7/4 = **1 3/4**

**Write the following mixed numbers as improper fractions.**

**23.** 2 1/4 = **9/4**

**24.** 3 3/5= **18/5**

**25.** 5 2/6 = **32/6**

**26.** 6 7/8 = **55/8**

***12.8 - I can add mixed numbers.***

**Add the following mixed numbers. Simplify if possible.**

**27.** 1 7/8 + 1 2/8 = **2 9/8 = 3 1/8**

**28.** 4 1/3 + 1 2/3 = **5 3/3 = 6**

**29.** 2 4/10 + 5 5/10 = **6 9/10**

**30.** 9 7/8 + 7 5/8 = **16 12/8 = 17 4/8 = 17 1 /2**

***12.9 - I can subtract mixed numbers.***

**31.** 6 3/10 – 1 8/10 = **4 5/10 = 4 1/2**

**32.** 9 4/12 – 4 9 /12 = **1 7/12**

**33.** 7 – 3 1/2 = **3 1/2**

**34.** 6 4/10 – 1 2/10 = **5 2/10 = 5 1/5**

***12.10 - I can decompose fractions.***

**35.** Draw a picture to show why both of these equations are true. **Answers will vary.**

3/4 = 1/4 + 2/4 3/4 = 1/4 + 1/4 + 1/4

***12.11 - I can draw a picture and write an equation to solve a problem.***

**36.**  Elizabeth walked 5/8 of a mile. Claire walked 3/8 of a mile. How much further did Elizabeth walk than Claire?

**2/8 mile further than Claire**

**37.**  Richard ran 2/6 of a mile. How much further does he need to run in order to run a whole mile?

**4/6 or 2/3 of a mile**