Name: _____ # _____

<u>Unit 3 Study Guide</u>

1. Isaac has 6 gallons of flower nutrient for his garden. He plans to use the nutrients to feed his flowers for 30 days. If he wants to use the same amount of nutrients every day, how much of the nutrients should he use each day?

Solution: _____

Number model: _____

2. Three writers held a story contest. They received 278 entries. If all three writers wanted to judge an equal number of stories, how many stories should each writer judge?
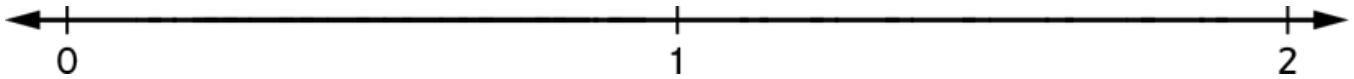
Solution: _____

Number model: _____

Explain what you did with the remainder and why.

_____
_____
_____
_____
_____

3. Write a division number story with an answer of $\frac{1}{5}$.

_____
_____
_____
_____
_____
_____

4. Use paper and pencil to solve the problem.

Divide the number line below so that it shows fifths. Label the fifths on the number line.

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←——+——————————————————————+——————————————————————+——→
    0                      1                      2
```

5. Use division, the Fraction Number Lines Poster, or fraction circle pieces to rename the fractions as mixed numbers.

a. $\dfrac{24}{7} =$ b. $\dfrac{27}{4} =$

6. Explain how you renamed $\dfrac{27}{4}$ as a mixed number.

_____

_____

_____

7. Roberta said, "I added $\dfrac{2}{5}$ + $\dfrac{1}{3}$ and got $\dfrac{7}{4}$." Does Roberta's answer make sense? _____

Explain how you know without calculating an answer.

_____

_____

_____

_____

8. Write a fraction to make each number sentence true. Use your fraction circle pieces or the Fraction Number Lines Poster to help you.

a. _____ + $\frac{1}{3}$ > **1**

b. **2 ½ −** _____ **> 2**

c. 1+ _____ > $1\frac{1}{4}$

d. 1 - _____ > $\frac{1}{5}$

9. A baker had $3\frac{1}{2}$ pounds of flour. She used $\frac{4}{5}$ of a pound to make a loaf of bread. How much flour does she have left?

Number Model: _____

Estimate: _____

Solution: _____

10. Henry is training to run a mile faster than before. One month he ran a mile in $9\frac{1}{4}$ minutes. One month later, he ran a mile in $8\frac{2}{4}$ minutes. Henry told his coach that he ran a mile $1\frac{1}{4}$ minutes faster in the second month.

a. What mistake did Henry make?

_____
_____
_____

b. How much faster did Henry actually run a mile in the second month?

SHOW ALL WORK!

_____
_____
_____

11. Solve: Use fractions circle pieces to help you.

a. $\dfrac{1}{8} + \dfrac{2}{24} =$ _____

b. $\dfrac{3}{6} + \dfrac{1}{18} =$ _____

12. What is:

a. $\dfrac{1}{5}$ of 25 ? =

b. $\dfrac{1}{7}$ of 21? =

c. $\dfrac{1}{3}$ of 10 ? =

d. $\dfrac{1}{4}$ of 15? =

13. Cynthia bought 45 movie passes at the theater. She gave a $\dfrac{1}{3}$ of the passes

to her younger brother. How many passes did her brother get? Show work.

_____

_____

14. Write another name for each mixed number that has the SAME denominator.

a. $5\dfrac{1}{7} =$ _____

b. $2\dfrac{9}{8} =$ _____