Math Unit 3 Review

1.

Use fraction circle pieces or a drawing to model the number story. Then solve.

Mary and her two friends were working on a science project. They shared 1 pizza equally as a snack. How much pizza did each person get?

Model:

2.

Use fraction circle pieces or a drawing to model the number story. Then solve.

Jose is taking care of a neighbor's cat. The neighbor will be gone for 5 days and left 3 cans of cat food. The cat is supposed to eat the same amount each day. How much food should Jose give the cat each day?

Model:

3.

Use fraction circle pieces or a drawing to model the number story. Then solve.

A school received a shipment of 4 boxes of paper. The school wants to split the paper equally among its 3 printers. How much paper should go to each printer?

Model:

4.

Use fraction circle pieces or a drawing to model the number story. Then solve.

Adrian brought 2 loaves of olive bread to school for a class celebration. There were 12 people who wanted to try the bread. They decided to split the loaves evenly. How much bread did each person receive?

Model:

5.

Solve the number story. You can use fraction circle pieces or drawings to help.
Write a number model to show how you solved the problem.

Davita brought 6 granola bars for herself and the other 7 girls in her camp group for a snack. If they share them equally, what fraction of a granola bar will each girl get?

Solution: _____ granola bar

Number model: _____

6.

Solve the number story. You can use fraction circle pieces or drawings to help.
Write a number model to show how you solved the problem.

Lucas is making 12 jumbo muffins to sell at his class bake sale. He has 2 bowls full of batter. What fraction of a bowl of batter should Lucas put in each muffin cup?

Solution: _____ bowl

Number model: _____

7.

Ms. Cox is combining bottles of hand sanitizer. She has 11 small bottles of sanitizer she wants to divide equally among 3 large containers. How many small bottles should she empty into each large container?

Solution: _____ small bottles

Number model: _____

8.

Write a division number story with an answer of $\frac{12}{8}$.

For each number story:

- Write a number model with a letter for the unknown.
- Solve. Show your work in the space provided. You may draw a picture to help.
- Decide what to do with the remainder. Explain what you did and why.

9.

Rebecca and her two sisters made pancakes for breakfast. They made 16 pancakes for 5 people. They want to make sure each person gets an equal serving. How many pancakes will each person get?

Number model: _____

Quotient: _____   Remainder: _____

Answer: Each person will get _____ pancakes.

Circle what you did with the remainder.

Ignored it

Reported it as a fraction

Rounded the quotient up

Why?

10.

Louis's soccer team is taking a bus to a tournament. They have 32 reusable water bottles. Their water carriers hold 6 bottles each. How many carriers will Louis's team need to bring all of their water bottles on the bus?

Number model: _____

Quotient: _____   Remainder: _____

Answer: Louis's team needs _____ carriers.

11.

Mariana saved $80 from her babysitting job. She wants to buy some shirts and pants that are on sale at her favorite store for $17 each. How many items of clothing can she buy?

Number model: _____

Quotient: _____   Remainder: _____

Answer: Mariana can buy _____ items.

12.

Jeremy wants to read 100 more books by the end of the school year. There are 36 weeks of school. How many books does Jeremy need to read each week?

Number model: _____

Quotient: _____   Remainder: _____

Answer: Jeremy needs to read _____ books each week.

13.

Which number is greater? Circle the greater number in each pair. Use the Fraction Number Lines Poster or fraction circle pieces to help you.

a. $\frac{5}{8}$ or $\frac{9}{10}$

b. $\frac{5}{3}$ or $1\frac{5}{6}$

c. $2\frac{1}{4}$ or $\frac{20}{12}$

d. $\frac{9}{6}$ or $\frac{13}{12}$

14.

Rachel and Dan are growing plants in science class. Rachel reports that her plant is $1\frac{1}{4}$ inches tall. Dan says his plant is $\frac{5}{2}$ inches tall.

a. Whose plant is taller? _____

b. How do you know?

15. Rename each fraction as a mixed number, or rename each mixed number as a fraction greater than one.

a. 7/3
b. 1 8/11
c. 11/8
d. 1 6/7
e. 17/4
f. 2 ¼

16.

a. Rename $\frac{34}{8}$ as a mixed number. _____

b. Explain your reasoning.

17.

Christopher solved a fraction problem. Does Christopher's answer make sense?
Circle Yes or No. Then write an argument to show how you know.

1 $\dfrac{2}{7} + \dfrac{1}{2} = \dfrac{3}{9}$ **Conjecture:** Does answer 1 make sense?   **Yes**   **No**

Argument:

18.

Christopher solved a fraction problem. Does Christopher's answer make sense?
Circle Yes or No. Then write an argument to show how you know.

2   Write >, <, or =.   **Conjecture:** Does answer 2 make sense?   **Yes**   **No**

$$\dfrac{9}{10} \ \textcircled{>} \ \dfrac{7}{8}$$

Argument:

19.

Christopher solved a fraction problem. Does Christopher's answer make sense?
Circle Yes or No. Then write an argument to show how you know.

3 $\dfrac{7}{12} + \dfrac{1}{4} = \dfrac{8}{12}$ **Conjecture:** Does answer 3 make sense?   **Yes**   **No**

Argument:

Christopher solved a fraction problem. Does Christopher's answer make sense?
Circle Yes or No. Then write an argument to show how you know.

4 $\dfrac{8}{9} + \dfrac{1}{3} = \dfrac{8}{12}$ **Conjecture:** Does answer 4 make sense?   **Yes**   **No**

Argument:

20.

Estimate the sum or difference for the fraction number story. Place an X on the number line to represent your estimate. Then circle the best answer.

Micah bought $1\frac{1}{3}$ pounds of grapes and $1\frac{1}{2}$ pounds of bananas. About how many pounds of fruit did Micah buy?

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←──┼──────┼──────┼──────┼──────┼──────┼──────┼──→
   0      1/2    1     1½     2     2½     3
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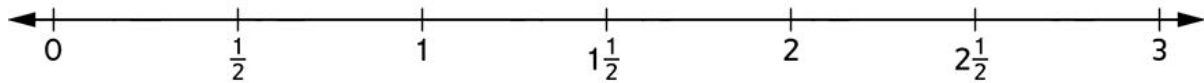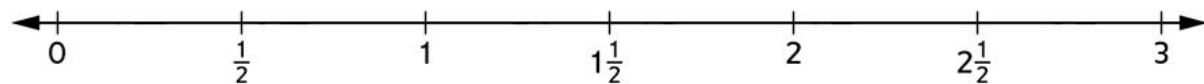
How much fruit?   about 2 pounds   about $2\frac{1}{2}$ pounds   about 3 pounds

Explain your thinking.

21.

Estimate the sum or difference for the fraction number story. Place an X on the number line to represent your estimate. Then circle the best answer.

Chloe has $2\frac{1}{2}$ yards of fabric. She will use about $\frac{3}{8}$ yard to make a scarf. How many yards of fabric will she have left?

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←──┼──────┼──────┼──────┼──────┼──────┼──────┼──→
   0      1/2    1     1½     2     2½     3
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How much fabric is left?   about $1\frac{1}{2}$ yards   about 2 yards   about 3 yards

Explain your thinking.

22.

The perimeter of a triangle is 10 inches. One side is $3\frac{9}{16}$ inches long. Another side is $4\frac{5}{8}$ inches long. About how many inches long is the third side?

Explain how you estimated.

23.

Solve by following the steps. You can use fraction circles, number lines, or drawings to help.

Find another name for $2\frac{3}{4}$.

- Show $2\frac{3}{4}$.
- Break apart 1 whole into $\frac{4}{4}$.

Name: _____

24.

Solve by following the steps. You can use fraction circles, number lines, or drawings to help.

Find another name for $\frac{14}{3}$.

- Show $\frac{14}{3}$.
- Make as many groups of 3 thirds as you can.
- Trade each $\frac{3}{3}$ for 1 whole.

Name: _____

25,

Write another name for each mixed number that has the same denominator. Check that your trades are fair and record them.

Example: $3\frac{8}{6}$

Name: _____ $2\frac{14}{6}$ _____

Trade: _____ *1 whole for $\frac{6}{6}$* _____

❸ $2\frac{4}{5}$

Name: _____

Trade: _____

❹ $1\frac{12}{10}$

Name: _____

Trade: _____

26.

Find the missing whole number or missing numerator:

$$1\frac{4}{3} = 2\frac{\boxed{}}{3}$$

$$\boxed{}\frac{7}{5} = 4\frac{2}{5}$$

$$2\frac{9}{2} = 4\frac{\boxed{}}{2}$$

27.

Mojo the monkey has 2 whole bananas and 5 half-bananas.
Write a mixed number to show how many bananas Mojo has.

_____ bananas

Manny the monkey has 4 whole bananas and 1 half-banana. Do Mojo and
Manny have the same amount of banana? Explain how you know.

Marcus the monkey has the same amount of banana as Mojo. He only has
half-bananas. How many half-bananas does he have? Explain your answer.

28.

For each story:

- Write a number model with a letter for the unknown.
- Make an estimate.
- Solve. You can use fraction circle pieces, a drawing, or a number line to help.
- Use your estimate to check whether your answer makes sense.

Andrea had $1\frac{1}{5}$ liters of water. She drank $\frac{3}{5}$ liter. How much did she have left?

Number model: _____

Estimate: _____

A table is $2\frac{8}{12}$ feet tall and a lamp on it is $1\frac{5}{12}$ feet tall. What is their total height?

Number model: _____

Estimate: _____

A chef had $2\frac{5}{8}$ pitas. She used $1\frac{7}{8}$ pitas. How many pitas does she have left?

Number model: _____

Estimate: _____

Niko rode a bike $2\frac{3}{10}$ miles. Then he rode another $2\frac{8}{10}$ miles. How far did he ride?

Number model: _____

Estimate: _____

Make an estimate. Then use your fraction circle pieces to find the sum. Use the red circle as the whole. Remember to think about using same-size pieces.

Write a number sentence to show how you used equivalent fractions to find the sum.

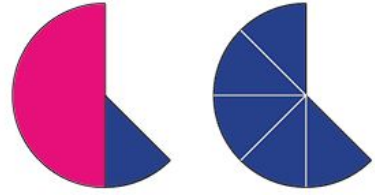**Example:** $\frac{1}{2} + \frac{1}{8} = ?$

Estimate: *Between $\frac{1}{2}$ and 1*

Show $\frac{1}{2} + \frac{1}{8}$ with fraction pieces.

Cover the $\frac{1}{2}$ piece with four $\frac{1}{8}$ pieces to show that $\frac{1}{2}$ is the same as $\frac{4}{8}$.

Sum: $\frac{5}{8}$ Number sentence: $\frac{4}{8} + \frac{1}{8} = \frac{5}{8}$

29.

$$\frac{2}{3} + \frac{1}{6} = ?$$

Estimate: _____

Sum: _____

Number sentence: _____

30.

$$\frac{2}{5} + \frac{3}{10} = ?$$

Estimate: _____

Sum: _____

Number sentence: _____

31.

$$\frac{1}{3} + \frac{1}{12} = ?$$

Estimate: _____

Sum: _____

Number sentence: _____

32.

$$\frac{2}{6} + \frac{1}{4} = ?$$

Estimate: _____

Sum: _____

Number sentence: _____

33.

$$\frac{2}{3} + \frac{1}{4} = ?$$

Estimate: _____

Sum: _____

Number sentence: _____

34.

$$\frac{1}{2} + \frac{1}{5} = ?$$

Estimate: _____

Sum: _____

Number sentence: _____

35.

Solve the number story. You can use fraction circle pieces, number lines, pictures, and other tools or models to help you. Show your work.

Four friends shared 5 sandwiches after their hike. If they each ate an equal share, how many sandwiches did each friend eat?

36.

Josh combined $\frac{1}{2}$ carton of eggs with $\frac{1}{3}$ carton of eggs. He said, "Now I have $\frac{2}{5}$ of a carton." Is Josh correct?

Answer: _____

How do you know?

37.

Ryan lives $3\frac{1}{4}$ miles from school. Kayla lives $2\frac{3}{4}$ miles from school. How much farther from school does Ryan live than Kayla?

38.

Delilah was playing *Fraction Capture*. She wrote her initials on a $\frac{1}{3}$ section and a $\frac{1}{6}$ section. What is the sum of the sections she initialed?

39.

Lauren had $\frac{3}{4}$ gallon of paint. She poured in an additional $\frac{1}{8}$ gallon from another can. How much paint does Lauren have?