

Name _____

Date _____

Menu Math Fractions III (Week 1) Division Intro (P)

Class _____

Directions: Complete the below listed assignments in order while working independently this week. The packet is due Friday, December 4th.

_____ Page 1 – Adding and Subtracting Unlike Fractions

_____ Pages 2 – 3 Word Problem Practice

_____ Page 4 – Multiplication of Fractions - Estimating

_____ Page 5 – Word Problem Practice

_____ Pages 6 – 8 Dividing Whole Numbers by Unit Fractions (Visual) and Practice

_____ Pages 9 – 10 Fraction divided by a Whole Number (Visual) and Practice

_____ Page 11 – Fraction Word Problems (Mixed Number Answers)

_____ Pages 12 – 13 Fraction Word Problem Practice Worksheets



Solve each problem. Write your answer as a mixed number (if possible).

1) $2\frac{1}{9} - \frac{7}{6} =$

2) $\frac{2}{3} + \frac{2}{4} =$

3) $\frac{32}{6} - 4\frac{5}{7} =$

4) $\frac{23}{9} + \frac{5}{2} =$

5) $4\frac{2}{7} - 2\frac{1}{5} =$

6) $5\frac{7}{8} + \frac{11}{4} =$

7) $\frac{5}{8} - \frac{2}{5} =$

8) $\frac{16}{5} + 2\frac{1}{2} =$

9) $\frac{21}{6} - \frac{7}{3} =$

10) $4\frac{2}{6} + 1\frac{2}{7} =$

11) $3\frac{5}{7} - \frac{7}{2} =$

12) $\frac{2}{4} + \frac{1}{2} =$

Answers

1. _____

2. _____

3. _____

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10. _____

11. _____

12. _____





Solve each problem.

Answers

- 1) Oliver spent $2 \frac{2}{6}$ hours working on his math homework. If he spent another $4 \frac{3}{6}$ hours on his reading homework, what is the total time he spent on homework?
- 2) At the beach, Mike built a sandcastle that was $3 \frac{3}{5}$ feet high. If he added a flag that was $3 \frac{1}{5}$ feet high, what is the total height of his creation?
- 3) A recipe called for using $6 \frac{5}{9}$ cups of flour before baking and another $5 \frac{4}{9}$ cups after baking. What is the total amount of flour needed in the recipe?
- 4) An empty bulldozer weighed $7 \frac{1}{9}$ tons. If it scooped up $4 \frac{3}{9}$ tons of dirt, what would be the combined weight of the bulldozer and dirt?
- 5) An architect built a road $6 \frac{6}{7}$ miles long. The next road he built was $9 \frac{1}{7}$ miles long. What is the combined length of the two roads?
- 6) Tiffany and her friend seeing who could pick up more bags of cans. Tiffany picked up $5 \frac{5}{8}$ bags and her friend picked up $4 \frac{1}{8}$ bags. How much more did Tiffany pick up, then her friend?
- 7) For Halloween, Lana received $7 \frac{4}{8}$ pounds of candy. After a week her family had eaten $3 \frac{6}{8}$ pounds. How many pounds of candy does she have left?
- 8) In two months Gwen's class recycled $8 \frac{6}{10}$ pounds of paper. If they recycled $5 \frac{4}{10}$ pounds the first month, how much did they recycle the second month?
- 9) During a blizzard it snowed $10 \frac{4}{7}$ inches. After a week the sun had melted $8 \frac{3}{7}$ inches of snow. How many inches of snow is left?
- 10) A restaurant had $6 \frac{5}{10}$ gallons of soup at the start of the day. By the end of the day they had $2 \frac{7}{10}$ gallons left. How many ounces of soup did they use during the day?

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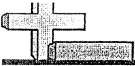
6. _____

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10. _____



Solve each problem.

Answers

- 1) Adam bought a box of fruit that weighed $6 \frac{3}{8}$ kilograms. If he bought a second box that weighed $7 \frac{2}{5}$ kilograms, what is the combined weight of both boxes?
- 2) Haley's class recycled $5 \frac{5}{6}$ boxes of paper in a month. If they recycled another $5 \frac{4}{5}$ boxes the next month what is the total amount they recycled?
- 3) On Monday Bianca spent $4 \frac{8}{9}$ hours studying. On Tuesday she spent another $3 \frac{5}{6}$ hours studying. What is the combined length of time she spent studying?
- 4) Emily walked $5 \frac{2}{6}$ miles in the morning and another $3 \frac{3}{5}$ miles in the afternoon. What was the total distance she walked?
- 5) A recipe called for using $5 \frac{1}{8}$ cups of flour before baking and another $8 \frac{7}{9}$ cups after baking. What is the total amount of flour needed in the recipe?
- 6) George bought a box of fruit that weighed $3 \frac{1}{2}$ kilograms. If he gave away $2 \frac{5}{7}$ kilograms of fruit to his friends, how many kilograms does he have left?
- 7) A full garbage truck weighed $9 \frac{3}{4}$ tons. After dumping the garbage, the truck weighed $3 \frac{5}{9}$ tons. What was the weight of the garbage?
- 8) While exercising Cody travelled $4 \frac{2}{7}$ kilometers. If he walked $2 \frac{3}{9}$ kilometers and jogged the rest, how many kilometers did he jog?
- 9) Victor jogged $8 \frac{3}{7}$ kilometers on Monday and $7 \frac{4}{6}$ kilometers on Tuesday. What is the difference between these two distances?
- 10) Zoe bought a bamboo plant that was $4 \frac{1}{2}$ feet high. When she got it home she cut $3 \frac{1}{6}$ feet off of it. How tall was the plant after she cut it down?

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Determine the answer using estimation.

When multiplying a fraction and a whole number you can estimate the answer by remembering that the fraction is just part of a number.

$$5 \times 6 \frac{2}{3} =$$

In the example above, $6 \frac{2}{3}$ is larger than 6 but less than 7.

So we know the answer is going to be between 5×6 and 5×7 .

$$5 \times 6 \frac{2}{3} = 33 \frac{1}{3}$$

The actual answer is $33 \frac{1}{3}$ which is between 5×6 (30) and 5×7 (35).

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
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9. _____
10. _____
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12. _____

- 1) $7 \frac{3}{6} \times 6 =$ A. 50 B. 54 C. 45 D. 36
- 2) $6 \frac{3}{7} \times 4 =$ A. $22 \frac{5}{7}$ B. $30 \frac{5}{7}$ C. $31 \frac{3}{7}$ D. $25 \frac{5}{7}$
- 3) $2 \frac{1}{2} \times 5 =$ A. $8 \frac{1}{2}$ B. $12 \frac{1}{2}$ C. $7 \frac{1}{2}$ D. $18 \frac{1}{2}$
- 4) $3 \frac{4}{5} \times 8 =$ A. $30 \frac{2}{5}$ B. $40 \frac{2}{5}$ C. $23 \frac{2}{5}$ D. $34 \frac{2}{5}$
- 5) $9 \frac{6}{7} \times 8 =$ A. $82 \frac{6}{7}$ B. $78 \frac{6}{7}$ C. $70 \frac{6}{7}$ D. $81 \frac{6}{7}$
- 6) $5 \times 5 \frac{1}{9} =$ A. $31 \frac{5}{9}$ B. $33 \frac{5}{9}$ C. $35 \frac{5}{9}$ D. $25 \frac{5}{9}$
- 7) $7 \frac{1}{3} \times 5 =$ A. $42 \frac{2}{3}$ B. $36 \frac{2}{3}$ C. $33 \frac{2}{3}$ D. $30 \frac{2}{3}$
- 8) $4 \frac{1}{3} \times 5 =$ A. $15 \frac{2}{3}$ B. $17 \frac{1}{3}$ C. $30 \frac{2}{3}$ D. $21 \frac{2}{3}$
- 9) $4 \times 6 \frac{8}{10} =$ A. $32 \frac{2}{10}$ B. $29 \frac{8}{10}$ C. $22 \frac{2}{10}$ D. $27 \frac{2}{10}$
- 10) $5 \frac{1}{2} \times 5 =$ A. $20 \frac{1}{2}$ B. $33 \frac{1}{2}$ C. $23 \frac{1}{2}$ D. $27 \frac{1}{2}$
- 11) $7 \frac{3}{4} \times 6 =$ A. $54 \frac{2}{4}$ B. $46 \frac{2}{4}$ C. $36 \frac{2}{4}$ D. $49 \frac{2}{4}$
- 12) $7 \times 3 \frac{1}{3} =$ A. $29 \frac{1}{3}$ B. $23 \frac{1}{3}$ C. $35 \frac{1}{3}$ D. $14 \frac{1}{3}$

④



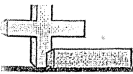
Solve each problem.

Answers

- 1) Rachel was packing up some of her old stuff into a box. A box can hold eight pounds, but she only filled it up two-quarters full. How much weight was in the box?
- 2) A chef cooked seven kilograms of mashed potatoes for a dinner party. If the guests only ate three-quarters of the amount he cooked, how much did they eat?
- 3) A pitcher could hold two-twelfths of a gallon of water. If Roger filled up nine pitchers, how much water would he have?
- 4) Will ran four miles on his first day of training. The next day he ran one-third that distance. How far did he run the second day?
- 5) Billy stacked six pieces of wood on top of one another. If each piece was three-quarters of a foot tall, how tall was his pile?
- 6) Debby needed one-third of a cup of water for 1 flower. If she had nine flowers how many cups would she need?
- 7) On Monday it snowed nine inches. The next day it snowed one-half that amount. How much did it snow on the second day?
- 8) A farmer gives each of his horses one-sixth of a salt lick a month. If he has seven horses, how many salt licks does he use a month?
- 9) Each day a company used seven-tenths of a box of paper. How many boxes would they have used after three days?
- 10) A group of seven friends each received one-half of a pound of candy. How much candy did they receive total?
- 11) A dog groomer could clean six dogs in an hour. How many could they clean in five-tenths of an hour?
- 12) A bakery used three cups of flour to make a full size cake. If they wanted to make a cake that was one-half the size, how many cups of flour would they need?

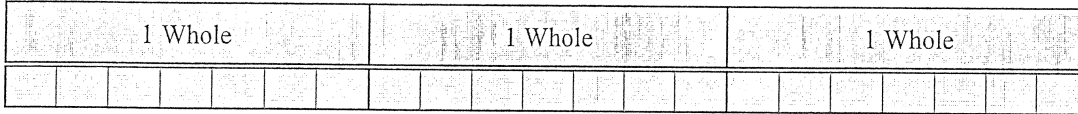
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Solve each problem by marking off the fractions. The first is completed for you.

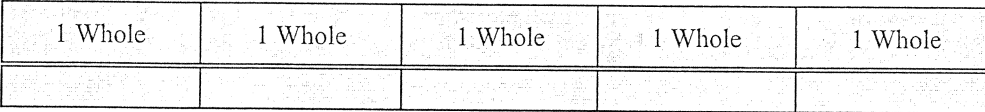
1) $3 \div \frac{1}{7} = ?$ This is the same as saying: How many $\frac{1}{7}$ are there in 3 wholes?



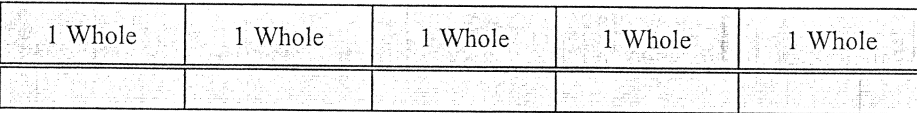
2) $4 \div \frac{1}{3} =$



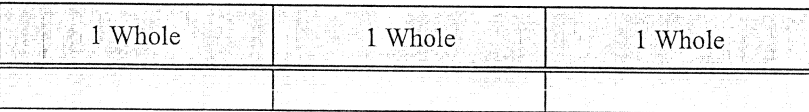
3) $5 \div \frac{1}{3} =$



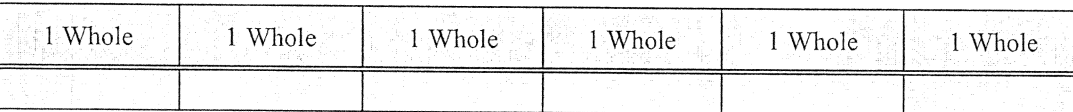
4) $5 \div \frac{1}{4} =$



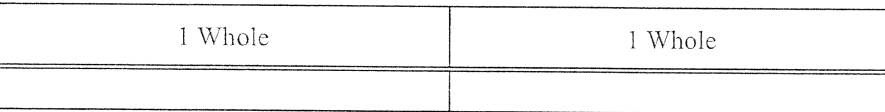
5) $3 \div \frac{1}{2} =$



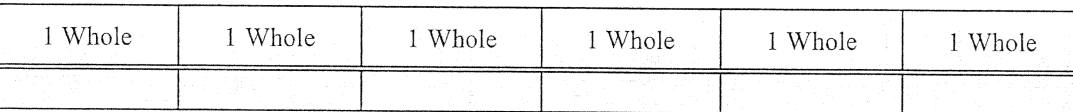
6) $6 \div \frac{1}{2} =$



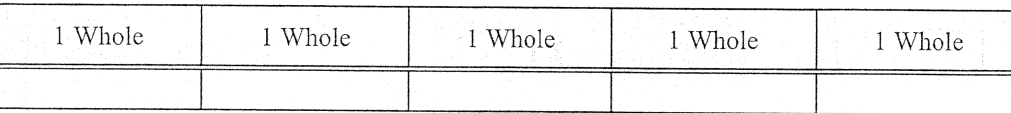
7) $2 \div \frac{1}{5} =$



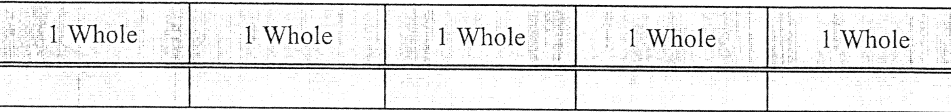
8) $6 \div \frac{1}{7} =$



9) $5 \div \frac{1}{2} =$



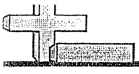
10) $5 \div \frac{1}{6} =$



Answers

1. _____
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3. _____
4. _____
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7. _____
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9. _____
10. _____

6



Solve each problem. Write your answer as a mixed number (if possible).

Answers

1) $9 \div \frac{1}{7} =$

2) $2 \div \frac{1}{2} =$

3) $9 \div \frac{1}{4} =$

4) $6 \div \frac{1}{2} =$

5) $7 \div \frac{1}{4} =$

6) $6 \div \frac{1}{9} =$

7) $6 \div \frac{1}{6} =$

8) $4 \div \frac{1}{9} =$

9) $5 \div \frac{1}{9} =$

10) $6 \div \frac{1}{5} =$

11) $7 \div \frac{1}{3} =$

12) $3 \div \frac{1}{5} =$

13) $7 \div \frac{1}{5} =$

14) $2 \div \frac{1}{7} =$

15) $9 \div \frac{1}{8} =$

16) $5 \div \frac{1}{7} =$

17) $7 \div \frac{1}{6} =$

18) $9 \div \frac{1}{2} =$

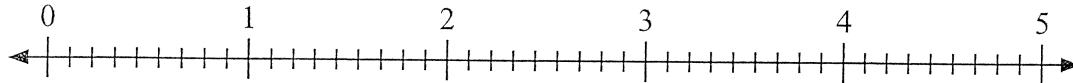
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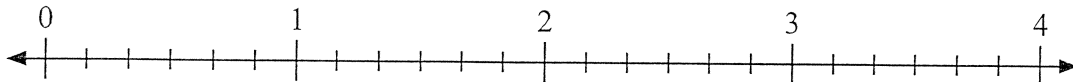


Use the numberline to solve.

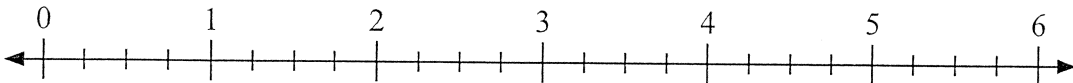
1) $4 \div \frac{8}{9} =$



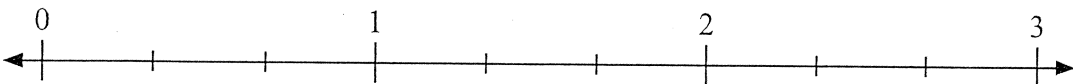
2) $2 \div \frac{5}{6} =$



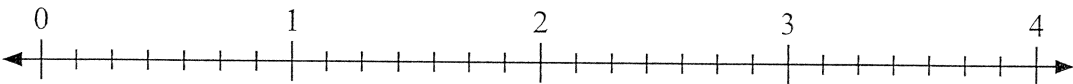
3) $4 \div \frac{1}{4} =$



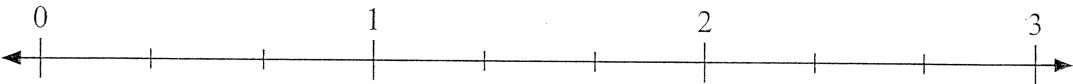
4) $2 \div \frac{1}{3} =$



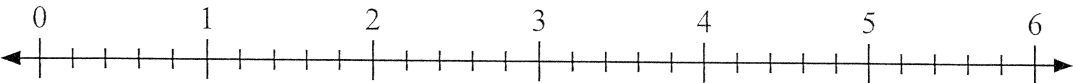
5) $3 \div \frac{1}{7} =$



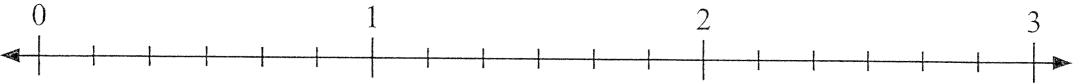
6) $2 \div \frac{2}{3} =$



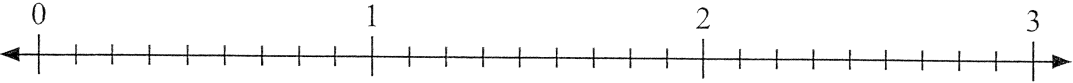
7) $5 \div \frac{1}{5} =$



8) $3 \div \frac{4}{6} =$



9) $3 \div \frac{5}{9} =$



Answers

1. _____

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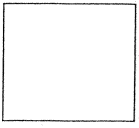
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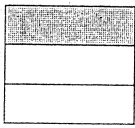
Use the box to show a visual example of how to divide a fraction and a whole number.

$\frac{1}{3} \div 4 = ?$



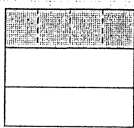
To solve, start with a whole.

Split the whole into 3 pieces and fill in 1 section.



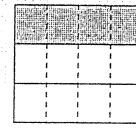
Now you can see the size of $\frac{1}{3}$.

Next split $\frac{1}{3}$ into 4 groups.



This shows the size of each piece.

To figure out the size of each piece in comparison to the whole, split the whole into 4 groups.

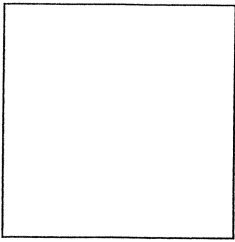


Each piece is $\frac{1}{12}$ of the whole. Or: $\frac{1}{3} \div 4 = \frac{1}{12}$

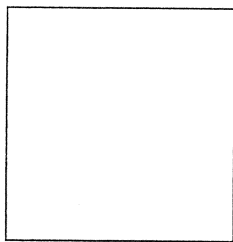
Answers

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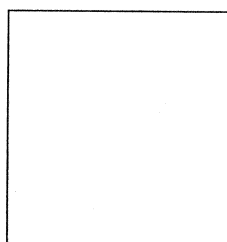
1) $\frac{1}{3} \div 3 =$



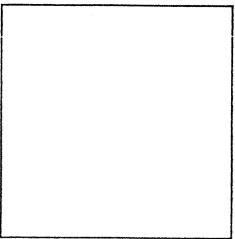
2) $\frac{1}{8} \div 8 =$



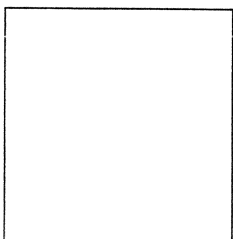
3) $\frac{1}{7} \div 2 =$



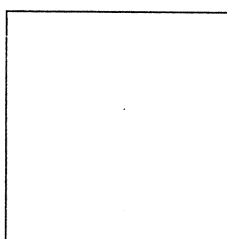
4) $\frac{1}{3} \div 4 =$



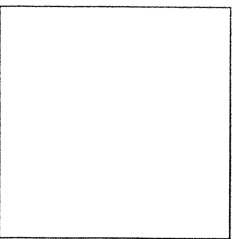
5) $\frac{1}{7} \div 4 =$



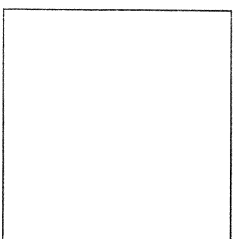
6) $\frac{1}{5} \div 4 =$



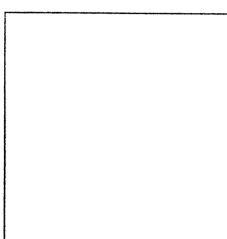
7) $\frac{1}{5} \div 6 =$



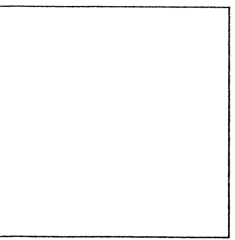
8) $\frac{1}{4} \div 9 =$



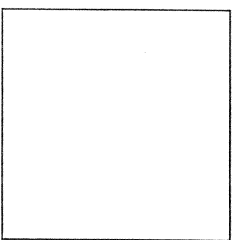
9) $\frac{1}{5} \div 6 =$



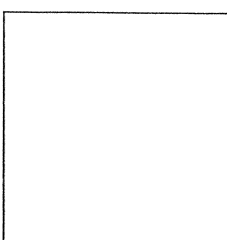
10) $\frac{1}{2} \div 9 =$



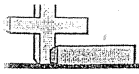
11) $\frac{1}{6} \div 6 =$



12) $\frac{1}{9} \div 6 =$



9



Solve each problem. Write your answer as a mixed number (if possible).

Answers

1) $\frac{1}{8} \div 2 =$

2) $\frac{1}{5} \div 3 =$

3) $\frac{1}{4} \div 4 =$

4) $\frac{1}{2} \div 3 =$

5) $\frac{1}{2} \div 9 =$

6) $\frac{1}{8} \div 3 =$

7) $\frac{1}{4} \div 8 =$

8) $\frac{1}{7} \div 7 =$

9) $\frac{1}{6} \div 3 =$

10) $\frac{1}{9} \div 2 =$

11) $\frac{1}{5} \div 6 =$

12) $\frac{1}{2} \div 6 =$

13) $\frac{1}{4} \div 9 =$

14) $\frac{1}{9} \div 8 =$

15) $\frac{1}{8} \div 7 =$

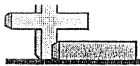
16) $\frac{1}{3} \div 4 =$

17) $\frac{1}{6} \div 7 =$

18) $\frac{1}{9} \div 2 =$

- 1. _____
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- 16. _____
- 17. _____
- 18. _____





Solve each problem. Make sure to write your answer as a fraction.

Answers

- 1) A fast food restaurant had 13 pounds of flour. If they split the flour evenly among 3 batches of chicken, how much flour would each batch use? Between what two whole numbers does your answer lie?
- 2) A teacher had 74 packages of paper she wanted to split equally into 7 piles. How much should be in each pile? Between what two whole numbers does your answer lie?
- 3) A pet store had 3 cats. If they wanted to split 19 ounces of cat food amongst them, how much should each cat get? Between what two whole numbers does your answer lie?
- 4) A toy store had 4 boxes that weighed a total of 34 kilograms. If each box had the same amount of weight, how much did each box weigh? Between what two whole numbers does your answer lie?
- 5) A doctor gave his patient liquid medicine and told him to drink 14 cups over the next 4 days. How much should the patient drink each day? Between what two whole numbers does your answer lie?
- 6) A blanket shop had 27 feet of fabric. If they wanted to use the fabric to make 5 blankets, each the same length, how long would each one be? Between what two whole numbers does your answer lie?
- 7) Sam had collected 66 leaves to feed to his caterpillar collection. If he wanted to split the leaves equally amongst the 7 cages, how much should he put in each cage? Between what two whole numbers does your answer lie?
- 8) Downtown, 8 artists were painting a mural that was 86 feet long. If they split the canvas evenly, how much will each artist get to paint? Which two whole numbers does your answer lie between?
- 9) A farmer had 23 acres he wanted to split amongst his 8 children. If each child gets the same amount of land, how much should each one get? Between what two whole numbers does your answer lie?
- 10) A sub sandwich maker had a sandwich that was 28 meters long. If he wanted to cut the sub into 3 pieces, each the same length, how long would each be? Between what two whole numbers does your answer lie?

1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____

Adding and Subtracting Fractions and Mixed Numbers: Word Problem Practice

- 1) For Joe's birthday, he gets a cake. After dinner, he and his family eat $\frac{1}{2}$ of the cake. Then, Joe eats another $\frac{1}{8}$ of the cake for breakfast the following morning. How much of the cake has been eaten so far?

How much of the cake is left over? (Hint: think about how much cake Joe started with. It might help to draw a picture.)

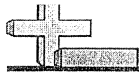
- 2) Ava buys fruit. If she buys $2\frac{1}{3}$ pounds of apples, and $1\frac{1}{5}$ pounds of pears, how many pounds of fruit does she buy in all?

- 3) Yessenia is making cookies. The recipe calls for her to use $\frac{2}{3}$ cup of white sugar and $\frac{1}{2}$ cup of brown sugar. How many cups of sugar will she use in all?

How much more white sugar than brown sugar will she use?

- 4) Madan plays soccer. On Monday, he practices for $\frac{3}{4}$ of an hour. On Wednesday, he practices for $1\frac{1}{3}$ hours. On Friday, he practices for $\frac{1}{2}$ hour. How many hours did he practice this week, total?

- 5) Christine has to write two essays this week. For her English class, she writes $2\frac{1}{8}$ pages. For her History class, she writes $3\frac{1}{5}$ pages. How many more pages did she write for History than for English?



Solve each problem. Write your answer as a mixed number (if possible).

Answers

- 1) Robin needed $3\frac{2}{3}$ feet of thread to finish a pillow she was making. If she has 2 times as much thread as she needs, what is the length of the thread she has?
- 2) A single box of thumb tacks weighed $3\frac{1}{2}$ ounces. If a teacher had $4\frac{1}{7}$ boxes, how much would their combined weight be?
- 3) Chloe collected 4 times as many bags of cans as her friend. If her friend collected $\frac{1}{6}$ of a bag, how much did Chloe collect?
- 4) At the malt shop a large chocolate shake takes $\frac{8}{9}$ of a pint of milk. If the medium shake takes $\frac{1}{7}$ the amount of a large, how much does the medium shake take?
- 5) A bottle of soda had $4\frac{2}{7}$ of the daily recommended sugar. If you were to drink $\frac{1}{2}$ of the bottle, how much of the daily recommend sugar would you have drank?
- 6) A soda shop owner told his employee to add 2 full cups and $\frac{1}{5}$ of a cup of syrup to each gallon of soda. If there were 4 gallons of soda, how much syrup would be needed?
- 7) Adam had a lump of silly putty that was $4\frac{5}{6}$ inches long. If he stretched it out to $2\frac{2}{3}$ times its current length how long would it be?
- 8) A musician's hair was originally 3 inches long. She asked her hair dresser to cut $\frac{5}{6}$ of it off. How many inches did she have cut off?
- 9) After a party there was $\frac{1}{2}$ of a pizza leftover. If the George gave $\frac{1}{2}$ of the leftover to Olivia, what fraction of the pizza did he give to her?
- 10) A geologist had two rocks on a scale that weighed $2\frac{1}{2}$ lbs together. Rock A was $\frac{1}{7}$ of the total weight. How much did rock A weigh?
- 11) A air freshener used $3\frac{3}{4}$ milliliters of perfume. If Wendy wanted to make 3 air freshners, how many milliliters of perfume would she use?
- 12) A batch of chicken required $3\frac{1}{3}$ cups of flour. If a fast food restaurant was making $4\frac{3}{7}$ batches, how much flour would they need?

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13