3-1 Name _____ Date _____

Homework

Solve. Write a multiplication equation for each problem.

Miguel swam 6 lengths of the pool. Po Lan swam 3 times as far as Miguel. Lionel swam $\frac{1}{3}$ as far as Miguel.

1. How many lengths did Po Lan swim? _____

   Write the equation. _____

2. How many lengths did Lionel swim? _____

   Write the equation. _____

Chris cut a length of rope that was 12 feet long. Dayna cut a rope 4 times as long as Chris's rope. Benita cut a rope $\frac{1}{4}$ as long as Chris's rope.

3. How long is Dayna's rope? _____

   Write the equation. _____

4. How long is Benita's rope? _____

   Write the equation. _____

Write two statements for each pair of treats. Use the word *times*.

5. Compare cookies and drinks.

   _____

   _____

6. Compare drinks and pizzas.

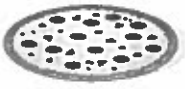
   _____

   _____

7. Compare cookies and pizzas.

   _____

   _____

Treat	Number
	24
	8
	2

Solve.

8. $\frac{1}{3} \cdot 18 =$ _____

9. $\frac{1}{4}$ of $12 =$ _____

10. $\frac{1}{8} \cdot 32 =$ _____

11. $\frac{1}{9}$ of $27 =$ _____

12. $\frac{1}{8} \cdot 56 =$ _____

13. $\frac{1}{3}$ of $15 =$ _____

3-2 Name _____ Date _____

Homework

Multiply.

1. $\frac{2}{3} \cdot 15 =$ _____
2. $\frac{3}{4} \cdot 8 =$ _____
3. $\frac{7}{8} \cdot 32 =$ _____
4. $\frac{2}{9} \cdot 27 =$ _____
5. $\frac{3}{8} \cdot 56 =$ _____
6. $\frac{3}{4} \cdot 16 =$ _____
7. $\frac{2}{3} \cdot 21 =$ _____
8. $\frac{4}{5} \cdot 35 =$ _____
9. $\frac{5}{7} \cdot 28 =$ _____
10. $\frac{4}{9} \cdot 45 =$ _____
11. $\frac{5}{12} \cdot 24 =$ _____
12. $\frac{9}{10} \cdot 70 =$ _____
13. $\frac{7}{9} \cdot 18 =$ _____
14. $\frac{5}{8} \cdot 80 =$ _____
15. $\frac{4}{15} \cdot 45 =$ _____

Solve. *Show your work.*

16. Rebecca has 21 math problems to solve. She has solved $\frac{2}{7}$ of them. How many problems has she solved?

_____

17. Tessa shot 36 free throws. She made 27 of them. What fraction of her free throws did Tessa make?

_____

18. A carousel has 56 horses. $\frac{3}{8}$ of them are white. How many horses are not white?

_____

19. Nathan works at a hardware store. Today he sold 48 tools. $\frac{5}{6}$ of the tools he sold were hammers. How many hammers did Nathan sell today?

_____

3-3

Homework

Name _____ Date _____

The campers in each cabin at Bear Claw Camp held a contest to see who could walk the farthest in one day. Use the sign to answer the questions. Write your answers as fractions.

1. The campers in Cabin A walked $\frac{1}{4}$ of the way to Otter Ridge. How many miles did they walk?

_____

2. The campers in Cabin B walked $\frac{2}{3}$ of the way to Silver Stream. How many miles did they walk?

_____

3. The campers in Cabin C walked $\frac{3}{5}$ of the way to Fossil Cave. How many miles did they walk?

_____

4. The campers in Cabin D walked $\frac{1}{6}$ of the way to Mammoth Mountain. How many miles did they walk?

_____

5. Which group of campers walked the farthest that day?

_____

6. Show $\frac{2}{3}$ of 4 on the number line.

7. Write $\frac{2}{3}$ of 4 as a fraction. _____

8. Write $\frac{2}{3}$ of 4 as a mixed number. _____

Multiply. Write your answers as fractions.

9. $\frac{2}{7} \cdot 4 =$ _____

10. $\frac{2}{3} \cdot 8 =$ _____

11. $\frac{5}{6} \cdot 4 =$ _____

12. $\frac{2}{9} \cdot 20 =$ _____

13. $\frac{7}{9} \cdot 2 =$ _____

14. $\frac{3}{8} \cdot 5 =$ _____

15. $\frac{2}{3} \cdot 13 =$ _____

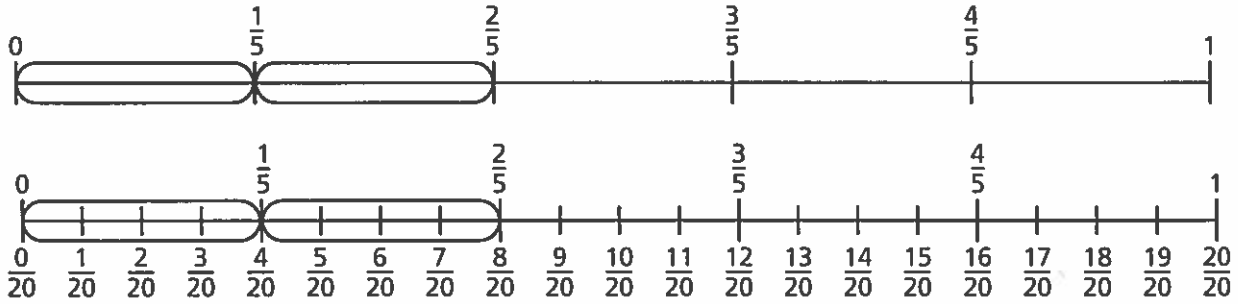
16. $\frac{5}{12} \cdot 18 =$ _____

17. $\frac{5}{9} \cdot 12 =$ _____

3-4 Name _____ Date _____

Homework

Tanith is using a number line to find $\frac{3}{4} \cdot \frac{2}{5}$. This is her work so far:

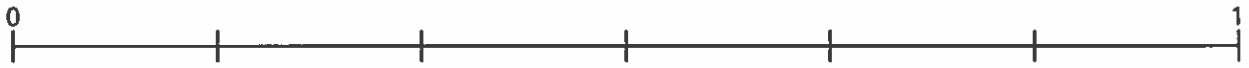


1. Explain Tanith's work so far to someone at home.

2. Finish Tanith's work by circling $\frac{3}{4}$ of each circled fifth. How many 20ths did you circle altogether? _____

   What is $\frac{3}{4} \cdot \frac{2}{5}$? _____

3. Use the number line to find $\frac{2}{3} \cdot \frac{5}{6}$. Label all the parts above and below. _____



Solve. *Show your work.*

4. Four friends at a party popped $\frac{3}{4}$ of a bag of popcorn. They ate half of what was popped. What fraction of the popcorn in the bag did they eat? _____

5. Ashley brought $\frac{7}{8}$ gallon of lemonade to the party. Her friends drank $\frac{2}{3}$ of it. How many gallons of lemonade did they drink? _____

Multiply. You do not need to simplify.

6. $\frac{2}{7} \cdot \frac{1}{3} =$ _____
7. $\frac{4}{9} \cdot \frac{2}{9} =$ _____
8. $\frac{1}{8} \cdot \frac{5}{6} =$ _____
9. $\frac{2}{7} \cdot 12 =$ _____
10. $\frac{4}{5} \cdot \frac{2}{3} =$ _____
11. $\frac{1}{7} \cdot \frac{3}{5} =$ _____
12. $\frac{9}{10} \cdot \frac{1}{2} =$ _____
13. $\frac{5}{12} \cdot 3 =$ _____
14. $\frac{5}{6} \cdot \frac{1}{6} =$ _____

3-5 Name _____ Date _____

Homework

Multiply. Simplify first if you can.

1. $\frac{2}{5} \cdot \frac{6}{7} =$ _____

2. $\frac{4}{9} \cdot \frac{1}{8} =$ _____

3. $\frac{5}{24} \cdot \frac{8}{15} =$ _____

4. $\frac{2}{17} \cdot \frac{8}{1} =$ _____

5. $\frac{3}{4} \cdot \frac{12}{25} =$ _____

6. $\frac{5}{7} \cdot \frac{3}{8} =$ _____

7. $\frac{3}{10} \cdot \frac{2}{3} =$ _____

8. $\frac{5}{16} \cdot \frac{2}{25} =$ _____

9. $\frac{4}{35} \cdot \frac{7}{12} =$ _____

10. $\frac{5}{6} \cdot \frac{7}{1} =$ _____

11. $\frac{7}{9} \cdot \frac{6}{49} =$ _____

12. $\frac{7}{8} \cdot \frac{2}{3} =$ _____

13. Which fraction is not equivalent to the others?

$\frac{3}{15}$ $\frac{2}{10}$ $\frac{1}{5}$ $\frac{9}{45}$ $\frac{10}{50}$ $\frac{6}{40}$ $\frac{7}{35}$ $\frac{100}{500}$

Solve. *Show your work*

14. In the town zoo, $\frac{3}{28}$ of the animals are birds. Of the birds, $\frac{4}{15}$ are birds of prey. What fraction of the animals at the zoo are birds of prey?

_____

15. Tuesday at the zoo, $\frac{5}{12}$ of the visitors were adults. Of these adults, $\frac{3}{10}$ were men. What fraction of the people who visited the zoo on Tuesday were men?

_____

16. On Tuesday, $\frac{14}{25}$ of the souvenirs purchased at the zoo gift shop were stuffed animals. Of the stuffed animals purchased, $\frac{10}{21}$ were bears. What fraction of the souvenirs purchased at the zoo gift shop on Tuesday were stuffed bears?

_____

3-6 Name _____ Date _____

Homework

Find each product by first rewriting each mixed number as a fraction.

1. $\frac{3}{7} \cdot 2\frac{1}{2} =$ _____

2. $1\frac{7}{10} \cdot 5 =$ _____

3. $2\frac{2}{3} \cdot 4\frac{1}{5} =$ _____

4. $5\frac{1}{3} \cdot \frac{3}{8} =$ _____

5. $\frac{5}{9} \cdot 1\frac{2}{5} =$ _____

6. $12 \cdot 2\frac{3}{4} =$ _____

7. $3\frac{1}{2} \cdot 3\frac{1}{2} =$ _____

8. $\frac{1}{9} \cdot 3\frac{9}{10} =$ _____

Solve. *Show your work.*

9. The bottom of Zeyda's jewelry box is a rectangle with length $5\frac{3}{8}$ inches and width $3\frac{1}{4}$ inches. What is the area of the bottom of the jewelry box?

_____

10. The Patel family went apple picking. The number of red apples they picked was $2\frac{2}{9}$ times the number of green apples they picked. If they picked 45 green apples, how many red apples did they pick?

_____

11. The art museum is $8\frac{1}{2}$ miles from Alison's house. Alison has ridden her bike $\frac{2}{3}$ of the way there so far. How far has she gone?

_____

3-7 Name _____ Date _____

Remembering

Subtract.

1. $\frac{3}{4} - \frac{1}{6}$

2. $\frac{2}{9} - \frac{1}{10}$

3. $\frac{7}{8} - \frac{1}{4}$

4. $\frac{6}{7} - \frac{1}{3}$

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

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

Estimate each sum or difference.

7. 6.759 + 2.099 _____

8. $44.25 − $21.76 _____

9. 14.6 + 2.4 _____

Find each product by first rewriting each mixed number as a fraction.

10. $\frac{5}{8} \cdot 3\frac{1}{3} =$ _____

11. $4\frac{3}{5} \cdot 5 =$ _____

12. $1\frac{2}{5} \cdot 3\frac{4}{9} =$ _____

13. $6\frac{1}{5} \cdot \frac{5}{8} =$ _____

14. **Stretch Your Thinking** Give an example that shows how to use the Distributive Property to multiply a number by a sum. All of the numbers you use should be mixed numbers or fractions.

_____

_____

3-9 Name _____ Date _____

Homework

Predict whether the product will be greater than, less than, or equal to the second factor. Then compute the product.

1. $\frac{4}{5} \cdot 6 = x$

   Predict: x ◯ 6

   Compute: $x =$ _____

2. $1\frac{1}{9} \cdot 6 = x$

   Predict: x ◯ 6

   Compute: $x =$ _____

3. $\frac{10}{10} \cdot 6 = x$

   Predict: x ◯ 6

   Compute: $x =$ _____

4. $\frac{2}{2} \cdot \frac{5}{6} = x$

   Predict: x ◯ $\frac{5}{6}$

   Compute: $x =$ _____

5. $\frac{5}{6} \cdot \frac{5}{6} = x$

   Predict: x ◯ $\frac{5}{6}$

   Compute: $x =$ _____

6. $1\frac{1}{3} \cdot \frac{5}{6} = x$

   Predict: x ◯ $\frac{5}{6}$

   Compute: $x =$ _____

Solve. *Show your work.*

7. James is $1\frac{3}{7}$ times as tall as his brother. His brother is $3\frac{1}{2}$ feet tall.

   Is James's height more or less than $3\frac{1}{2}$ feet?

   _____

   How tall is James?

   _____

8. South Middle School has 750 students. North Middle School has $\frac{13}{15}$ times as many students as South.

   Does North Middle School have more or fewer than 750 students?

   _____

   How many students attend North Middle School?

   _____

3-10 Name _____ Date _____

Remembering

Add or subtract.

1. $2\frac{3}{4} - 1\frac{5}{8}$

2. $4\frac{2}{3} + 1\frac{5}{9}$

3. $10\frac{1}{2} - 3\frac{4}{5}$

4. $7 - 2\frac{1}{6}$

5. $3\frac{2}{5} + 4\frac{5}{6}$

6. $8\frac{1}{3} + 1\frac{3}{4}$

Complete each fraction box.

7.

$\frac{2}{5}$ and $\frac{2}{7}$	
>	
+	
−	
·	

8.

$\frac{5}{6}$ and $\frac{6}{7}$	
>	
+	
−	
·	

Predict whether the product will be greater than, less than, or equal to the second factor. Then compute the product.

9. $\frac{2}{3} \cdot 5 = x$

Predict: x ◯ 5

Compute: $x =$ _____

10. $\frac{3}{3} \cdot 5 = x$

Predict: x ◯ 5

Compute: $x =$ _____

11. $1\frac{1}{6} \cdot 5 = x$

Predict: x ◯ 5

Compute: $x =$ _____

12. **Stretch Your Thinking** Draw a diagram to show how many twelfths there are in 3. Describe a situation in which you would need to know how many twelfths there are in 3.

_____

_____

_____

3-12 Name _____ Date _____

Homework

Solve.

1. $5 \cdot \frac{1}{3} =$ _____
2. $5 \div \frac{1}{3} =$ _____
3. $\frac{1}{8} \div 2 =$ _____
4. $27 \div 10 =$ _____
5. $5 \div \frac{1}{100} =$ _____
6. $12 \cdot \frac{1}{9} =$ _____
7. $\frac{3}{5} \cdot \frac{10}{27} =$ _____
8. $16 \div \frac{1}{4} =$ _____
9. $\frac{1}{5} \div 10 =$ _____
10. $10 \div \frac{1}{5} =$ _____
11. $\frac{1}{8} \cdot 14 =$ _____
12. $18 \div 20 =$ _____

Tell whether you need to multiply or divide. Then solve. *Show your work.*

13. A dime weighs about $\frac{1}{12}$ ounce. Jody has 1 pound (16 ounces) of dimes. About many dimes does she have?

_____

14. Maddie has 180 coins. Of these coins, $\frac{1}{12}$ are dimes. About how many dimes does she have?

_____

15. A rectangle has length 3 feet and width $\frac{1}{4}$ foot. What is the area of the rectangle?

_____

16. A rectangle has area 3 square feet and width $\frac{1}{2}$ foot. What is the length of the rectangle?

_____

17. Nisha wants to study 5 hours for the spelling bee. If she studies $\frac{1}{3}$ hour per night, how many nights will she have to study?

_____

3-13 Name _____ Date _____

Homework

Solve. *Show your work.*

1. Dan's Ice Cream comes in cartons of two sizes. The large carton holds $4\frac{1}{2}$ pounds. The small carton holds $1\frac{3}{4}$ pounds less. How much ice cream does the small carton hold?

_____

2. Mac picked four baskets of blueberries. The weights of the berries in pounds are given below. Order the weights from lightest to heaviest.

$\frac{5}{4}$ $\frac{9}{10}$ $\frac{4}{5}$ $\frac{13}{20}$

_____

3. Four cones of Dan's Ice Cream hold $\frac{1}{2}$ pound. How much ice cream does each cone hold?

_____

4. If a dish of ice cream holds $\frac{1}{4}$ pound, how many dishes can you get from a $4\frac{1}{2}$-pound carton of Dan's Ice Cream?

_____

Solve. Give your answer in simplest form.

5. $3 \div \frac{1}{5} =$ _____

6. $1\frac{3}{4} + \frac{11}{16} =$ _____

7. $\frac{9}{14} \cdot 2\frac{1}{3} =$ _____

8. $2\frac{3}{5} \cdot 6 =$ _____

9. $\frac{1}{3} + \frac{3}{5} =$ _____

10. $\frac{5}{6} + \frac{8}{9} =$ _____

11. $\frac{1}{8} \div 4 =$ _____

12. $\frac{2}{5} - \frac{1}{10} =$ _____

13. $3\frac{5}{7} - 1\frac{1}{2} =$ _____

14. $\frac{7}{8} \cdot \frac{2}{7} =$ _____