



2023/2024		
2023/2024		
2		
2		
Mathematics/Reveal		
الرياضيات/ريفيل		
5		
,		
General		
العام		
15		
4		
5		
(6-11)		
الأسئلة الموضوعية /MCQ		
الأسئلة المقالية /FRQ		
100		
150 minutes		
Paper-Based		

Calculator

Not Allowed



What are the quotients? Use a pattern to solve and explain your thinking.

1.
$$64.2 \div 100 =$$

$$64.2 \div 10 =$$

$$64.2 \div 1 =$$

$$64.2 \div 0.1 =$$

$$64.2 \div 0.01 =$$

2.
$$7.5 \div 100 =$$

$$7.5 \div 10 =$$

$$7.5 \div 1 =$$

$$7.5 \div 0.1 =$$

$$7.5 \div 0.01 =$$

What is the quotient?

9. Elisha is buying a trumpet. She will make 10 equal payments to pay for the trumpet. How much will each payment be?



10. Danny walked 567.3 miles in 100 days.
Michelle walked 567.3 miles by walking 0.1 mile each day. Who walked for more days? Who walked farther each day? Explain.



 Use a pattern to find the quotients. (Lesson 8-1)

$$32.8 \div 0.1 =$$

2 Explain how to estimate quotients of decimals

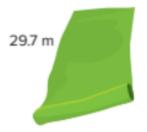
Learn+work together

Page :8

A theater teacher is making costumes for the spring musical.

Each costume uses 0.5 meter of this fabric.

About how many costumes can the teacher make using all the fabric?



Work Together

A car wash uses 247.5 liters of soap on a weekday. 5.7 liters of soap are used per car. About how many cars go to the car wash each weekday?

2 Explain how to estimate quotients of decimals

(1-4)

Page :9

Estimate the quotient.

1.
$$4.42 \div 0.81 = x$$

2.
$$36.8 \div 5.7 = d$$

3. $19.73 \div 3.21 = c$

4. $5.4 \div 0.25 = m$

Ravi estimates that he needs $1\frac{1}{2}$ gallons of paint. He has two cans of paint with the amount of paint shown.

Does Ravi have enough paint?

3



3	a) Explain how to use an estimate to	(9-12)	Page :40
	predict a calculated solution		

- 9. Dan waters his plants with $\frac{2}{3}$ cup of water on Monday and $\frac{2}{3}$ cup of water on Friday. Does Dan use more than 1 cup of water in all? Explain why or why not.
- 10. There is $\frac{7}{8}$ gallon of milk in Zelda's refrigerator. Zelda and her brother drink $\frac{1}{3}$ gallon of milk. About how much milk is left? Explain your answer.
- 11. STEM Connection Poppy is helping clean up a park. Her group is cleaning up ²/₅ of the park. Another group is cleaning up ¹/₄ of the park. About how much of the park should a third group clean up so that they cover the entire park?

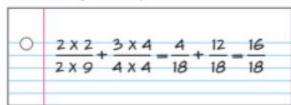


12. Extend Your Thinking How can you apply estimating the sums and differences of fractions that are less than 1 to fractions that are greater than 1? 3

9. A club ordered two same-sized vegetable pizzas cut into different numbers of pieces. What fraction of a whole pizza is left?



- 3 b) Add fractions with unlike (10-13) Page :50 denominators
 - 10. Oliver uses $\frac{1}{6}$ gallon of water for his outdoor plants. He uses $\frac{1}{4}$ gallon of water for his indoor plants. How many gallons of water does Oliver use on all of his plants?
 - 11. Heather uses $\frac{2}{3}$ foot of yarn for her art project. She adds another $\frac{1}{12}$ foot to complete the project. How much yarn does Heather use in all?
 - 12. Error Analysis Mia found the sum of $\frac{2}{9} + \frac{3}{4}$. How can you help Mia correct her mistake?



13. Extend Your Thinking Solve the equation using two different like denominators. Is the sum the same when you use different denominators? Explain why or why not.

$$\frac{3}{8} + \frac{7}{10} = ?$$

- Jonah walks 2 7/8 miles on
 Monday. On Tuesday, he walks
 1 2/3 miles. How many miles does
 Jonah walk on Monday and Tuesday?
 - **A.** $3\frac{9}{24}$ mi

4

- B. 3 13/24 mi
- **C.** $4\frac{13}{24}$ mi
- **D.** $4\frac{15}{24}$ mi

- 2. Kai has $4\frac{2}{5}$ ounces of juice in his cup. Martha pours $5\frac{7}{10}$ more ounces into his cup. How many ounces of juice are in Kai's cup?
 - **A.** $9\frac{1}{10}$ oz
 - **B.** $9\frac{9}{10}$ oz
 - C. $10\frac{1}{10}$ oz
 - **D.** $10\frac{9}{10}$ oz
- 3. Aiyana buys $4\frac{3}{10}$ pounds of potatoes. She uses $2\frac{3}{4}$ pounds in a recipe. How many pounds does she have left?
- 4. Mark has a sheet of wrapping paper that is $1\frac{1}{3}$ yards long. He uses $\frac{3}{5}$ yard of the wrapping paper. How much of the sheet does Mark have left?
- 5. Ben and Gina go apple picking. The weights of the apples they pick are shown. How many pounds do they pick altogether?





Ben's Apples

Gina's Apples

6. Caleb walks 2 ¹/₄ miles from his home to the park. Andre walks 1 ²/₃ miles from his home to the park. Who lives closer to the park? By how much?

- 7. At the beginning of summer, Rick was $54\frac{5}{6}$ inches tall. He grew $1\frac{1}{4}$ inches over the summer. How tall is he now?
- 8. Andy walks his dog for $2\frac{2}{3}$ miles on Saturday. On Sunday, he walks his dog for $3\frac{1}{2}$ miles. How many miles does he walk his dog on Saturday and Sunday?
- 9. STEM Connection Poppy is helping to clean up a park. The trash bag she is using can hold up to 15 pounds. There are $10\frac{5}{8}$ pounds in the bag now. How many more pounds of trash can Poppy collect with the same bag?



a) Use a representation to multiply a 5 fraction by a fraction

(1-6)

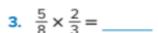
Page:95

What is the product? Use a representation to solve.

1.
$$\frac{1}{2} \times \frac{1}{2} =$$



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



4.
$$\frac{3}{4} \times \frac{3}{5} =$$

5.
$$\frac{4}{5} \times \frac{5}{6} =$$

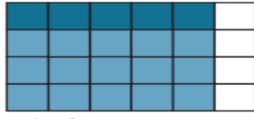
6.
$$\frac{7}{8} \times \frac{1}{3} =$$

Solve by drawing an area model. (Lesson 10-3)

fraction by a fraction

$$\frac{7}{9} \times \frac{3}{4} =$$

The area model represents what product? (Lesson 10-3)



- **A.** $\frac{1}{4} \times \frac{3}{5}$
- **B.** $\frac{1}{6} \times \frac{3}{4}$
- **c.** $\frac{1}{4} \times \frac{5}{6}$
- D. $\frac{4}{5} \times \frac{5}{6}$
- 5 b) Multiply a fraction by a fraction

(5-7)

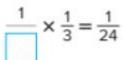
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- 5. On Sunday, Aisha used $\frac{3}{4}$ of a bag of oranges to make fresh orange juice. On Monday, she used $\frac{4}{5}$ as many oranges as on Sunday. How many bags of oranges did she use on Monday?
- 6. Tabitha and Ally are putting together a puzzle. They have $\frac{3}{5}$ of the puzzle completed. If Tabitha put $\frac{1}{2}$ of the partly-finished puzzle togethe, what fraction of the puzzle did she put together?



7. Christina and her friends shared $\frac{2}{3}$ of a bag of snacks. Her friends ate $\frac{4}{5}$ of what was shared. How much of the bag of snacks did they eat?

- 8. Error Analysis Joelle thinks that the product of $\frac{7}{8} \times \frac{3}{10}$ is greater than the product of $\frac{3}{8} \times \frac{7}{10}$. How do you respond to Joelle's thinking?
- Complete the equation.

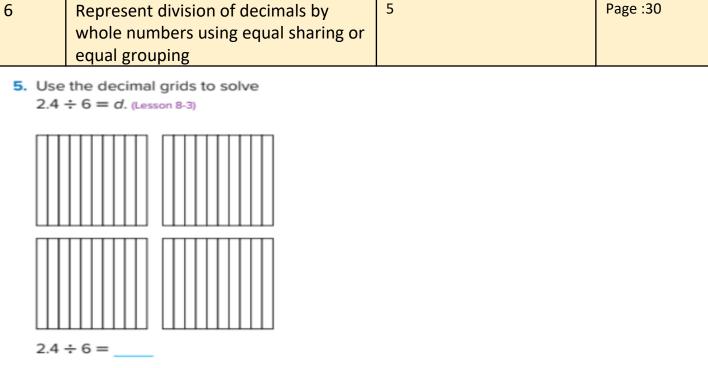


10. STEM Connection Saffron is baking a sweet potato pie. Her recipe calls for $\frac{2}{3}$ cup of sugar. If she wants to make $\frac{1}{2}$ of the recipe, how much sugar will she need?



Pa	rt 2	Type of Questions	لدرجات لكل سؤال موضوعي/MCQ		1	4 درجات
6		nt division of decimals by Imbers using equal sharing couping	(1-8)		Page :1	.3

What is the quotient? Use decimal grids to solve.



7 Use place-value understanding and equivalent representations to divide a decimal by a whole number

(3-10)

Page :17

What is the quotient?

Solve each problem. Then, explain your solution.

 Darren has a cooler with 9 liters of lemonade.
 He pours 0.3 liter of lemonade into each glass. How many glasses of lemonade can Darren fill

- 6. Mr. Ramirez bought a watermelon that weighs 12 pounds for a picnic. He cuts it into pieces that each weigh 1.5 pounds. How many pieces of watermelon can Mr. Ramirez cut?
- 7. A grocery store got a delivery of 24 pounds of almonds. They package the almonds into containers with 0.75 pound of almonds in each. How many containers can they fill with almond?
- 8. Melissa has \$30 to spend on apples from a local apple orchard. How many pounds of apples can Melissa buy?



8	Write an equivalent equation with a	(9-12)	Page :22
	whole-number divisor to solve a		
	division equation		

- Error Analysis Mario says that 28 ÷ 0.7 = 0.4. Do you agree or disagree? Explain how you know.
- 10. A car drove 104 miles in 1.6 hours. If the speed of the car was the same for the entire trip, how fast did the car go? How do you know?
- Write a real-life problem that involves dividing a decimal by a whole number. Solve the problem using a representation.
- 12. Extend Your Thinking Is the quotient of 52 ÷ 1.04 less than or greater than 52? How do you know? What is the quotient?

Rewrite the equation using multiplication by powers of 10. Then, use partial quotients to solve.

9 Write an equivalent equation containing whole numbers to solve a division equation

14 Page :31

 Which equivalent expression uses powers of 10 to help you solve 52.71 ÷ 0.21? (Lesson 8-6)

- A. 5,271 ÷ 21
- B. 5,271 ÷ 0.21
- C. 52.71 ÷ 21
- D. 52.71 ÷ 2.1

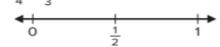
10 Use benchmark numbers to estimate the sums and differences of fractions

(1-8)

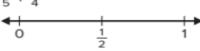
Page :39

Will the sum be *greater than 1* or *less than 1*? Use the number line and explain how you can use benchmark numbers to justify.

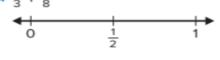
1.
$$\frac{3}{4} + \frac{2}{3}$$



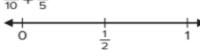
2. $\frac{3}{5} + \frac{1}{2}$



3.
$$\frac{1}{3} + \frac{5}{8}$$



4.
$$\frac{3}{10} + \frac{4}{5}$$



(1-8)

Page :39

Is the sum or difference reasonable? Use estimation to check.

5.
$$\frac{1}{4} + \frac{5}{6} = \frac{3}{4}$$

6.
$$\frac{2}{5} + \frac{1}{2} = \frac{9}{10}$$

7.
$$\frac{3}{4} - \frac{3}{8} = \frac{2}{3}$$

8.
$$\frac{7}{10} - \frac{2}{5} = \frac{1}{2}$$

10 Use benchmark numbers to estimate the sums and differences of fractions

(3,4)

Page :42

Without actually calculating, use what you know about fractions to estimate the sum.

3. $\frac{4}{7} + \frac{6}{11}$

Circle the best estimate.

- a. $\frac{1}{2}$
- b.
- c. 2
- **d.** 10
- e. 18

4. $\frac{9}{20} + \frac{1}{4}$

Circle the best estimate.

- a. -
- **b.** $\frac{3}{4}$
- c.
- **d.** 10
- e. 24

Use a representation to add fractions with unlike denominators

(1-4)

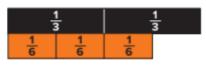
Page:45

Complete the equation using addends with like denominators.

1.
$$\frac{1}{2} + \frac{3}{10} = \frac{}{} + \frac{}{}$$

2.
$$\frac{2}{3} + \frac{5}{9} = \frac{}{} + \frac{}{}$$





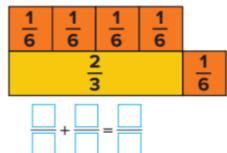
3.
$$\frac{5}{8} + \frac{1}{4} = \frac{}{} + \frac{}{}$$

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

1	1	1	1	1	1
8	8	8	8	8	4



21. What equation do the fraction tiles represent? (Lesson 9-2)



Use a representation to subtract fractions with unlike denominators

Learn+work together

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Learn

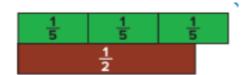
Binta needs two boards of equal length.

How much of the longer board will she cut off?



What is the difference?

$$\frac{3}{5} - \frac{1}{2} =$$



Use a representation to subtract fractions with unlike denominators

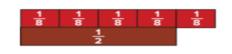
(1-4)

Page :53

Complete the equation with equivalent fractions that have like denominators.

1.
$$\frac{5}{8} - \frac{1}{2} = \frac{}{} - \frac{}{}$$

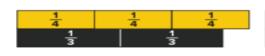
2.
$$\frac{2}{3} - \frac{3}{6} = \frac{}{} - \frac{}{}$$





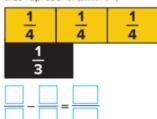
3.
$$\frac{3}{4} - \frac{2}{3} = \frac{}{} - \frac{}{}$$

4.
$$\frac{5}{6} - \frac{1}{4} = \frac{}{} - \frac{}{}$$





19. What equation do the fraction tiles represent? (Lesson 9-4)



13

Subtract fractions with unlike denominators

Learn

(1-8)

Page:56

Learn

Joana started with $\frac{3}{4}$ quart of orange juice. The amount shown is how much she has left.

How can you determine how much orange juice Joana used?



Subtract fractions with unlike 13

denominators

Page:57

Which multiple can you use as a like denominator to subtract the fractions?

- 1. $\frac{7}{8} \frac{1}{3}$
 - A. 12
 - B. 16
 - C. 24
 - D. 30

- 2. $\frac{4}{5} \frac{1}{4} = ?$
 - A. 10
 - B. 20
 - C. 24
 - D. 35

Complete the equation using fractions with like denominators.

3.
$$\frac{7}{9} - \frac{1}{6} = \frac{}{}$$

4.
$$\frac{9}{10} - \frac{3}{4} = \frac{}{} - \frac{}{}$$

What is the difference?

5.
$$\frac{7}{12} - \frac{3}{8} =$$

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

7.
$$\frac{5}{6} - \frac{1}{4} =$$

8.
$$\frac{3}{5} - \frac{1}{3} =$$

What is the sum? Choose the correct answer.

1.
$$3\frac{3}{10} + 4\frac{2}{5} = ?$$

- A. $7\frac{5}{10}$
- **B.** $8\frac{7}{10}$
- C. $8\frac{5}{10}$
- **D.** $7\frac{7}{10}$

- 2. $1\frac{3}{4} + 5\frac{1}{6} = ?$
 - A. $6\frac{4}{6}$
 - **B.** $7\frac{4}{12}$
 - C. $6\frac{11}{12}$
 - **D.** $6\frac{5}{6}$

What is the sum?

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

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

5.
$$6\frac{3}{8} + 2\frac{1}{6} =$$

6.
$$3\frac{2}{9} + 1\frac{3}{4} =$$

7.
$$2\frac{1}{5} + 3\frac{1}{2} =$$

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

Add mixed numbers with unlike denominators

27. What is the sum?

$$4\frac{2}{3} + 3\frac{3}{4} =$$
 (Lesson 9-6)

25. What is the sum?

14

15

$$3\frac{2}{5} + 2\frac{1}{3} =$$
 (Lesson 9-6)

Subtract mixed numbers with unlike denominators

(1-8)

(25,27)

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What is the difference? Choose the correct answer.

1.
$$3\frac{2}{3} - 1\frac{1}{5} = ?$$

- A. $2\frac{7}{15}$
- **B.** $2\frac{1}{5}$
- C. $2\frac{1}{15}$
- **D.** $2\frac{1}{3}$

- 2. $6\frac{7}{8} 5\frac{5}{6} = ?$
 - A. $1\frac{5}{24}$
 - **B.** $1\frac{1}{24}$
 - C. $1\frac{4}{24}$
 - D. $1\frac{2}{24}$

What is the difference?

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

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

5.
$$5\frac{5}{9} - 3\frac{1}{6} =$$

6.
$$3\frac{7}{10} - 1\frac{3}{8} =$$

7.
$$6\frac{1}{2} - 3\frac{1}{3} =$$

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

add and subtract mixed numbers with regrouping

(1-8)

Page :69

What is the sum or difference? Choose the correct answer.

1.
$$5\frac{2}{5} - 3\frac{2}{3} = ?$$

A.
$$2\frac{11}{15}$$

C.
$$2\frac{3}{5}$$

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

C.
$$8\frac{7}{12}$$

D.
$$8\frac{8}{12}$$

What is the sum or difference?

3.
$$6\frac{1}{8} - 4\frac{1}{3} =$$

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

5.
$$8\frac{1}{6} - 2\frac{2}{9} =$$

6.
$$2\frac{7}{8} + 1\frac{1}{2} =$$

7.
$$3\frac{1}{5} - 2\frac{3}{4} =$$

8.
$$1\frac{7}{12} + 3\frac{5}{8} =$$

What is the product? Use a representation to solve.

$$\frac{2}{3}$$
 × 6 = _____



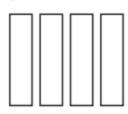
17 Use a representation to multiply a whole number by a fraction

(1-4)

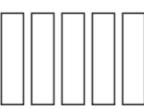
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What is the product? Use a representation to solve.

1.
$$\frac{3}{5} \times 4 =$$



2. $\frac{5}{6} \times 5 =$ _____



3. $\frac{2}{5} \times 8 =$

4.
$$\frac{3}{8} \times 7 =$$

18 Multiply a whole number by a fraction

(5-7)

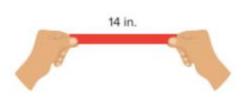
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5. A bottle of water holds $\frac{2}{12}$ gallon. How much water is in this package of water bottles?



- 6. Arabella has a drone that she flies $\frac{3}{8}$ of a mile every day for 7 days. How far does she fly her dron?
- 7. A male seal at the aquarium weighs 3 tons. A female seal weighs $\frac{3}{4}$ as much as the male seal. What is the weight of the female seal?

- 8. Rafael plants vegetables in $\frac{4}{5}$ of his garden. The total area of his garden is 15 square meters. What is the area of his garden that will *not* be planted with vegetables?
- 9. Bea has this length of ribbon. She will use $\frac{5}{6}$ of it to wrap a present. How many inches of ribbon will she use?



- 10. Timora goes to school for 7 hours each day. She spends $\frac{4}{5}$ of each day in class. How many hours does she spend in class each school day?
 - A. 4 hours

19

B. $\frac{28}{5} = 5\frac{3}{5}$ hours

c. $\frac{21}{5} = 4\frac{1}{5}$ hours

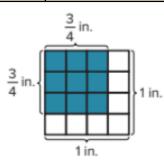
D. 7 hours

Find the area of a rectangle with
fractional side lengths by tiling it with
unit squares with unit fraction side
lengths

Work Together

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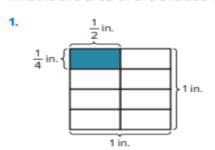
What is the area of the shaded square?

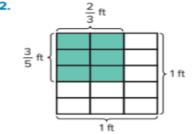


- 19 Find the area of a rectangle with fractional side lengths by tiling it with unit squares with unit fraction side lengths
- (1-4)

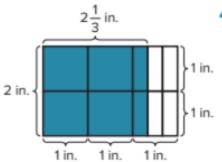
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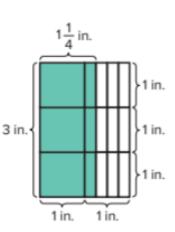
What is the area of the shaded rectangle?





3.





20

Use an area model to represent multiplication of mixed numbers (1-6)

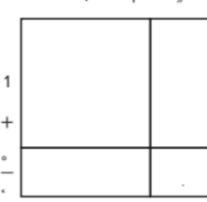
Page :107

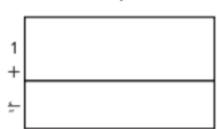
Complete the area model. What is the product?

1.
$$1\frac{1}{3} \times 1\frac{1}{2} =$$

2.
$$1\frac{3}{4} \times 4 =$$

1





What is the product? Use an area model to solve.

3.
$$1\frac{1}{4} \times 1\frac{1}{5} =$$

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

5.
$$3\frac{1}{3} \times 1\frac{1}{2} =$$

6.
$$2\frac{1}{4} \times 2\frac{2}{3} =$$

