تم تحميل هذا الملف من موقع المناهج الإماراتية

تجميعة أسئلة وفق الهيكل الوزاري منهج ريفيل

موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف السادس ⇦ رياضيات ⇦ الفصل الأول ⇦ ملفات متنوعة ⇦ الملف

تاريخ إضافة الملف على موقع المناهج: 2024-10-31 16:25:12

المزيد من مادة رياضيات:	ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

التواصل الاجتماعي بحسب الصف السادس

صفحة المناهج الإماراتية على فيسبوك					
المواد على تلغرام	التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات	

المزيد من الملفات بحسب الصف السادس والمادة رياضيات في الفصل الأول

1	الهيكل الوزاري الجديد المسار العام منهج بريدج
2	الهيكل الوزاري الجديد المسار المتقدم منهج ريفيل
3	الهيكل الوزاري الجديد المسار العام منهج ريفيل
4	أسئلة الامتحان النهائي الوزاري متبوع بالإجابات
5	أسئلة الامتحان النهائي الوزاري متبوع بالإجابات

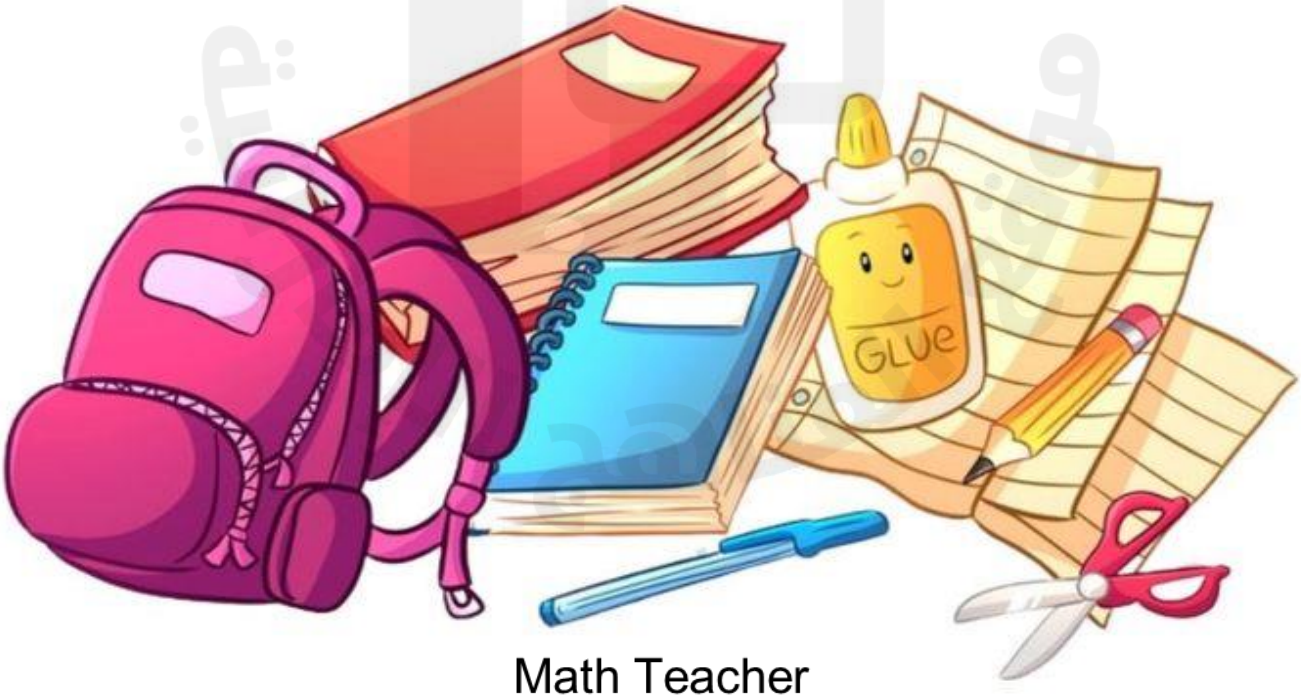
الإمارات العربية المتحدة
وزارة التربية والتعليم

Al Huiteen school
Al Dhafra

6th GRADE

EOT1-2025-COVERAGE

Mathematics



Math Teacher
. Alaa Elatawy

Academic Year العام الدراسي	2024/2025
Term الفصل	1
Subject المادة	Mathematics/Reveal الرياضيات/ريفيل
Grade الصف	6
Stream المسار	General العام
Number of MCQ عدد الأسئلة الموضوعية	15
Marks of MCQ درجة الأسئلة الموضوعية	4

Number of FRQ عدد الأسئلة المقالية	6
Marks per FRQ الدرجات للأسئلة المقالية	(4-10)
Type of All Questions نوع كافة الأسئلة	MCQ/ الأسئلة الموضوعية FRQ/ الأسئلة المقالية
Maximum Overall Grade الدرجة القصوى الممكنة	100
Exam Duration - مدة الامتحان	150 minutes
Mode of Implementation -طريقة التطبيق	SwiftAssess & Paper-Based
Calculator الآلة الحاسبة	Not Allowed غير مسموحة

*	Questions might appear in a different order in the actual exam, or on the exam paper.
*	قد تظهر الأسئلة بترتيب مختلف في الامتحان الفعلي، أو على ورقة الامتحان
**	As it appears in the textbook, LMS, and (Main_IP).
**	كما وردت في كتاب الطالب وLMS والخطة الفصلية.

Part1	Type of Questions	FQR	Marks per each Question	4-10 marks
1	Use ratio and rate reasoning to solve real-world and mathematical problems.	1-6		Page:45

1. A survey showed that 4 out of 5 students own a bicycle. Based on this result, how many of the 800 students in a school own a bicycle?

2. A survey of Mr. Thorne's class shows that 5 out of 8 students will buy lunch today. Based on this result, how many of the 720 students in the school will buy today?

3. The ratio of the number of baskets made by Tony to the number of baskets made by Colin is 2 to 3. Tony made 10 baskets. How many baskets did Colin make?

4. In the school choir, there is 1 boy for every 4 girls. There are a total of 11 boys. How many girls are in the choir?

5. Liberty Middle School has 600 students. In Anna's class, 3 out of 8 students walk to school. How many students at the school can be expected to walk to school?

6. Pine Hill Middle School has 300 students. In Zoey's class, 2 out of 5 students belong to a club. How many students at the school would you expect belong to a club?

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2	Solve real-world problems involving rates and unit rates by using bar diagrams, double number lines, and equivalent rates	1-3	Page:71

Use any strategy to solve each problem.

1. Mr. Anderson is ordering pizzas for a class pizza party. Pizza Place has a special where he can buy 3 large pizzas for $18.75. At Mario's Pizzeria, he can buy 4 large pizzas for $22. If he needs to buy 12 pizzas, how much will he save if he buys the pizzas from Mario's Pizzeria instead of Pizza Place? (Example 1)

2. Skylar and Rodrigo each recorded how far they traveled while skateboarding. Skylar traveled 65 feet in 5 seconds and Rodrigo traveled 108 feet in 8 seconds. How much farther did Rodrigo travel per second than Skylar? (Example 1)

3. Melissa is buying party favors to make gift bags. Supplies LTD sells a 5-pack of favors for $11.25 and Parties and More sells a 3-pack of favors for $8.25. At these rates, how much will she save if she buys 15 favors from Supplies LTD than Parties and More? (Example 1)

4. Tara can type 180 words in 4 minutes. At this rate, how many words can she type in 10 minutes? (Example 2)

2	Solve real-world problems involving rates and unit rates by using bar diagrams, double number lines, and equivalent rates	11	Page:76

11. Open Response A barge traveled 120 miles downstream in 8 hours. Then it traveled 100 miles upstream in 10 hours. (Lesson 8)

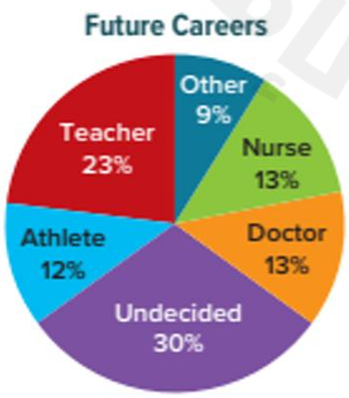
A. How did the rate of speed downstream compare to its rate of speed upstream?

B. What was the difference between the rates of speed?

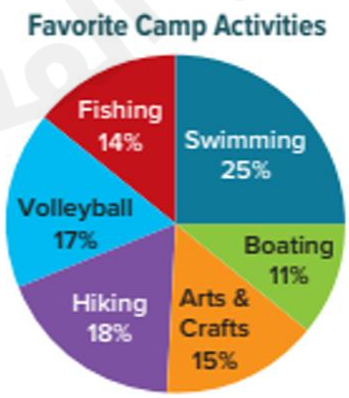
3	Find the percent of a number by reasoning about percent as a rate per 100 and by using bar diagrams, ratio tables, equivalent ratios, and double number lines.	1-8	Page:111

Use any strategy to solve each problem.

1. The graph shows the career interests of the students at Linda's school. Suppose there are 400 students at the school. How many of them want to be an athlete? (Example 1)



2. The graph shows the favorite activities of campers at a summer camp. Suppose there are 300 campers at the camp. How many campers favor fishing? (Example 1)



Use any method to find the percent of each number. (Examples 2–4)

3. 15% of 240 = _____

4. 65% of 180 = _____

5. 250% of 82 = _____

6. 150% of 44 = _____

7. 0.15% of 350 = _____

8. 0.4% of 168 = _____

4	Apply prior knowledge about division and reciprocals to divide fractions by whole and mixed numbers. *Solve problems by using the standard algorithms for addition, subtraction, multiplication, and division to compute with multi-digit decimals.	1-7	Page:185

1. The drama teacher is making bandanas for costumes. She is cutting $\frac{1}{2}$ yard of fabric into 6 bandanas of the same size. Write and solve an equation to find how much fabric there will be for each bandana. (Example 1)

2. A landscape designer has $\frac{4}{5}$ ton of mulch to divide equally among 8 customers. Write and solve an equation to find how much mulch each customer will receive. (Example 1)

Divide. Write in simplest form. (Examples 2 and 3)

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

4. $6\frac{2}{3} \div 8 =$ _____

5. $4\frac{2}{3} \div 6 =$ _____

6. $3\frac{3}{5} \div 1\frac{1}{2} =$ _____

7. $3\frac{3}{4} \div 1\frac{2}{3} =$ _____

8. $4\frac{1}{2} \div 2\frac{7}{10} =$ _____

4	Apply prior knowledge about division and reciprocals to divide fractions by whole and mixed numbers. *Solve problems by using the standard algorithms for addition, subtraction, multiplication, and division to compute with multi-digit decimals.	5-8	Page:153

Find each product. (Example 4)

5. 0.025 × 1.24 = _____

6. 17.15 × 1.062 = _____

Find each quotient. (Example 5)

7. 32.674 ÷ 0.016 = _____

8. 3.825 ÷ 0.25 = _____

5	Graph rational numbers in the coordinate plane, Recognize that the coordinates of points reflected across either axis differ by the sign of one of the coordinates	1-13	Page:235

Identify the quadrant in which each point is located. (Example 1)

1. $\left(-1\frac{1}{2}, -2\frac{1}{4}\right)$

2. $\left(5\frac{3}{4}, -6\frac{1}{5}\right)$

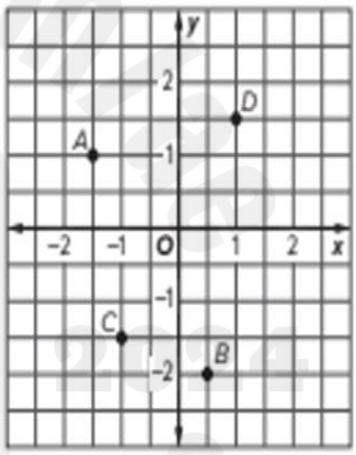
3. $\left(\frac{4}{5}, 3\frac{3}{4}\right)$

4. $\left(-3\frac{1}{2}, 2\frac{4}{5}\right)$

5. Identify the axis on which the point $\left(-\frac{2}{3}, 0\right)$ is located. (Example 2)

6. Identify the axis on which the point $\left(0, 6\frac{3}{5}\right)$ is located. (Example 2)

Use the coordinate plane. Identify the ordered pair that names each point. (Example 3)

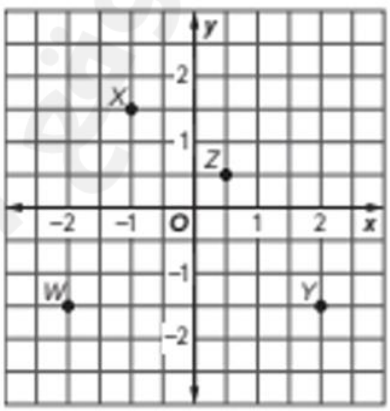


7. A _____

8. B _____

9. C _____

Use the coordinate plane. Identify the point for each ordered pair. (Example 4)

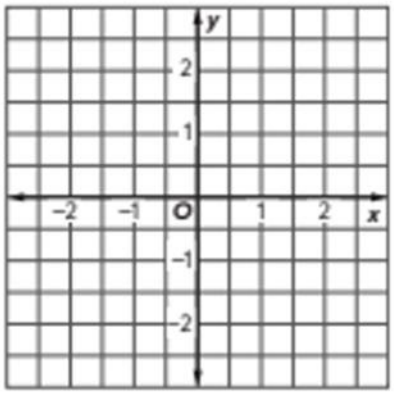


10. $\left(\frac{1}{2}, \frac{1}{2}\right)$ _____

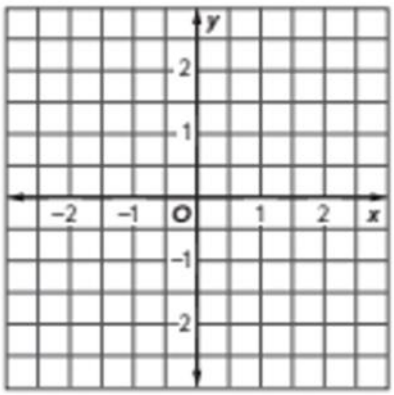
11. $\left(-1, 1\frac{1}{2}\right)$ _____

12. $\left(-2, -1\frac{1}{2}\right)$ _____

13. Graph $A\left(\frac{1}{2}, 1\right)$. (Example 5)



14. Grid Graph $X\left(-1\frac{1}{2}, 2\right)$.



6	Order rational numbers.	1-10	Page:223

Graph each set of rational numbers on a number line. (Example 1)

1. $\left\{-0.9, -2\frac{1}{2}, 0.25, -\frac{3}{4}\right\}$

2. $\left\{-\frac{1}{4}, -1.4, -1\frac{4}{5}, -0.15\right\}$

3. Mammoth Cave in Kentucky has a minimum elevation of −124.1 meters. Suppose a hiker traveled to the bottom of the cave. How many meters did the hiker travel? (Example 2)

4. A scuba diver was at a depth of $-80\frac{1}{2}$ feet. How many feet did the scuba diver travel if the diver traveled to the surface of the ocean? (Example 2)

Fill in the ◯ with <, >, or = to make a true statement. (Example 3)

5. $-0.24 \bigcirc -\frac{3}{16}$

6. $-\frac{5}{8} \bigcirc -0.76$

7. $-4\frac{4}{25} \bigcirc -4.16$

8. $-5.52 \bigcirc -5\frac{7}{15}$

Order each set of rational numbers from least to greatest. (Example 4)

9. $\left\{-4.25, -4\frac{7}{10}, -4\frac{3}{20}\right\}$

10. $\left\{-1.55, -1\frac{11}{100}, -1\frac{23}{25}\right\}$

Part2	Type of Questions	MCQ	Marks per each Question	4 marks

7	Describe a ratio relationship using correct mathematical language.	1-6	Page:11

1. In Suri's coin purse, she has 6 dimes and 4 quarters. Martha has 5 dimes and 3 quarters. Suri thinks that the ratio of dimes to quarters in both purses is the same because they each have 2 more quarters than dimes. Is the same ratio of dimes to quarters maintained? Justify your response. (Example 1)

2. In a trivia game, Levi answered 8 questions correctly out of 10 turns in the game. He then answered the next three questions correctly. He reasoned that because he added 3 to both the total questions and his correct responses, that the ratio of correct answers to total questions remained the same. Is he correct? Justify your response. (Example 1)

3. Riley needs to make fruit punch for the family reunion. One batch of punch has the ingredients shown. If the punch bowl holds 27 cups, how many cups of orange juice will she need to keep the ratio in a full punch bowl the same? (Example 2)

Item	Cups
Cranberry Juice	4
Lemon Lime Soda	1
Orange Juice	2
Pineapple Juice	2

4. A small fruit basket contains the fruits shown. A large basket has the same ratio of fruits as the small basket. If the large basket has 42 total pieces of fruit, how many are pears? (Example 2)

Type of Fruit	Amount
Apple	6
Orange	5
Pear	3

5. Mrs. Santiago is buying doughnuts for her office. Each box contains 6 glazed, 4 cream filled, and 2 chocolate flavored doughnuts. If there were 20 total cream filled doughnuts, how many chocolate doughnuts did she buy? (Example 3)

6. A small batch of trail mix contains 2 cups of raisins, 2 cups of peanuts, 1 cup of sunflower seeds, and 1 cup of chocolate coated candies. A large batch has the same ratio of ingredients as a small batch. If the large batch has 8 cups of peanuts, how many cups of sunflower seeds are in a large batch? (Example 3)

8	Show a ratio relationship between two quantities using tables of equivalent ratios and double number lines.	1-8	Page:21

Use any strategy to solve each problem.

1. Jayden's snow cone machine makes 3 snow cones from 0.5 pound of ice. How many snow cones can be made with 5 pounds of ice? (Example 1)

2. Nyoko is having a pizza party. Two large pizzas serve 9 people. How many large pizzas should she order to serve 36 guests at the party? (Example 1)

3. The world record for the most number of speed skips in 60 seconds is 332 skips. If the record holder skipped at a constant ratio of seconds to skips, how many skips did she make in 15 seconds? (Example 2)

4. A recipe for homemade clay calls for 6 cups of water for every 12 cups of flour. How many cups of water are needed when 4 cups of flour are used? (Example 2)

5. Adrian decorated 16 cupcakes in 28 minutes. If he continues at this pace, how many minutes will it take him to decorate 56 cupcakes? (Example 3)

6. A comic book store is having a sale. You can buy 20 comic books for $35. What is the cost of 8 comic books during the sale? (Example 3)

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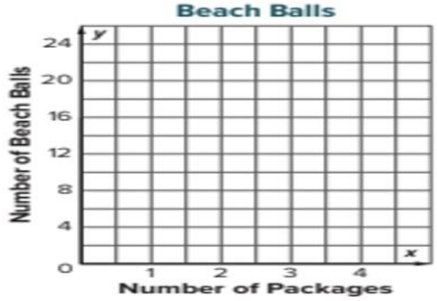
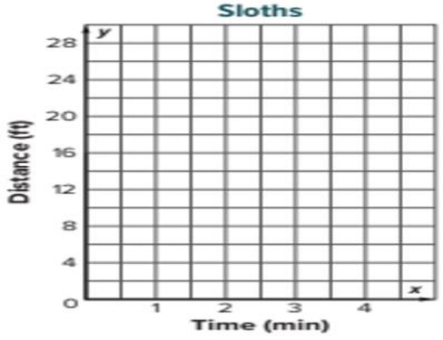
9	Graph a ratio relationship on the coordinate plane.	1-5	Page:27&28

1. Lulah is buying beach balls for her beach themed party. Each package contains 6 beach balls. Generate the set of ordered pairs for the ratio relationship between the number of beach balls y and the number of packages x for a total of 1, 2, 3, and 4 packages. Then graph the relationship on the coordinate plane and describe the pattern in the graph. (Examples 1 and 2)

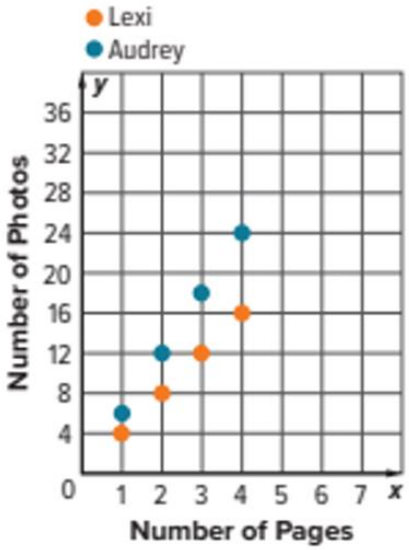


2. A sloth travels about 7 feet every minute. Generate the set of ordered pairs for the ratio relationship between the total distance traveled y and the number of minutes x for a total of 1, 2, 3, and 4 minutes. Then graph the relationship on the coordinate plane and describe the pattern in the graph. (Examples 1 and 2)



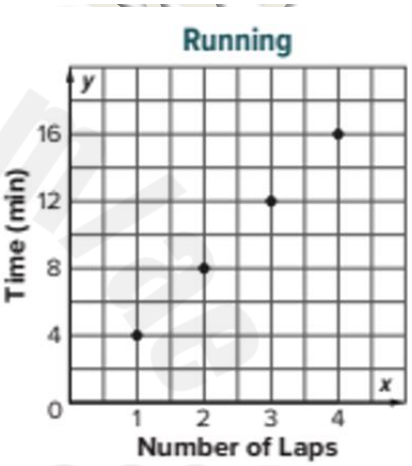
9	Graph a ratio relationship on the coordinate plane.	1-5	Page:27&28

3. Two friends are making scrapbooks. The number of photos Lexi and Audrey place on each page of their scrapbooks is shown in the graph. Describe the ratio relationship for each person.



4. **Multiselect** Lacy is running laps around the track. The time in minutes and the number of laps ran are shown in the graph. Which of the following is true about the ratio relationship shown in the graph?

- ☐ Every 4 minutes, Lacy ran 1 lap.
- ☐ Lacy ran 8 laps in 2 minutes.
- ☐ It took Lacy 1 minute to run 4 laps.
- ☐ In 16 minutes, Lacy completed 4 laps.
- ☐ Based on the relationship, it would take Lacy 20 minutes to complete 5 laps.



5. **Identify Structure** There are 4 quarters for every one dollar and 10 dimes for every dollar. Without graphing, would the ratio of quarters to dollars or dimes to dollars appear to have a steeper line? Explain your reasoning.

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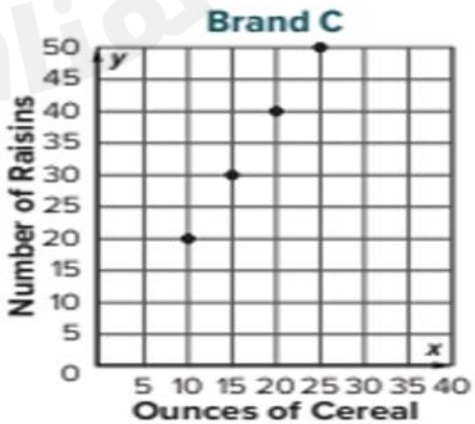
10	Compare ratio relationships that are shown using different representations.	1-3	Page:35

1. Cereal Brand A advertises that they have 60 raisins in their 24-ounce box of cereal. The advertised ratio of raisins to ounces for two other cereal brands are shown in the table and graph. Which brand advertises the greatest ratio of raisins to ounces of cereal? Justify your response. (Example 1)

Brand B

Ounces of Cereal	6	12	20	24
Raisins	18	36	60	72



2. At the gym, Alex spends 24 minutes doing resistance training for every 30 minutes spent doing cardio exercises, Carisa spends 15 minutes on resistance for every 20 minutes on cardio, and Manuel spends 14 minutes on resistance for every 15 minutes on cardio. Which person has the greatest ratio of minutes spent on resistance to minutes spent on cardio? (Example 2)

Alex

Resistance (min)			
Cardio (min)			

Carisa

Resistance (min)			
Cardio (min)			

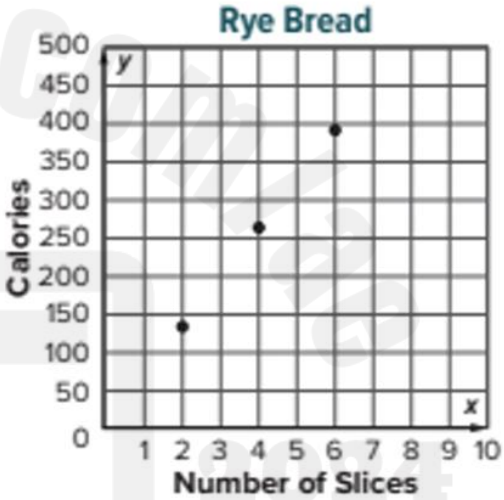
Manuel

Resistance (min)			
Cardio (min)			

3. Open Response Mrs. Quinto is comparing the Calories in different types of bread. Wheat bread has 150 Calories for every 2 slices. The Calories in two other types of bread are shown in the table and graph. Which bread has the greatest ratio of Calories to slices?

White Bread

Slices	Calories
2	160
4	320
6	480



10	Compare ratio relationships that are shown using different representations.	4-8	Page:36

4. Mrs. Gonzalez wants to hire a catering company for her daughter's quinceañera. The ratios of the cost per person for a child and an adult for two different companies are shown in the table. Mrs. Gonzalez is planning on 25 adults and 12 children adding the party. How much less will it cost for her to hire Planning Pros than Party Time?

	Party Time	Planning Pros
Cost per Adult ($)	10.50	9.00
Cost per Child ($)	6.00	7.50

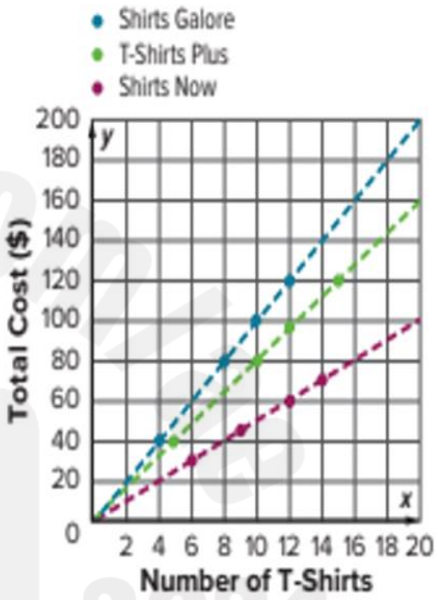
5. Charlie, Beth, and Miguel all babysit kids in their neighborhood. The table shows the number of hours and the amount each of them earned last night. If each person babysits for 5 hours next weekend, which person will earn the most money? Use a coordinate plane if needed to solve.

	Charlie	Beth	Miguel
Number of Hours	3	4.5	4
Total Earned ($)	28.50	42.00	40.00

6. **Construct an Argument** Ratio relationships can be described with words or they can be displayed using bar diagrams, tables, and graphs. Which display is more advantageous to use when comparing ratio relationships? Explain your reasoning.

7. Give an example of a ratio relationship that you have seen outside of school. How was the ratio relationship displayed, and why was the relationship displayed that way?

8. **Find the Error** Avery wants to order new practice T-shirts for her soccer team. The ratio of the total cost to the number of T-shirts purchased for three different stores is shown in the graph. Avery says that the shirts will cost less from Shirts Galore because the graph is steeper than the graphs of the other relationships. Find her mistake and correct it.



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11	Use ratio reasoning to convert between customary units of measurement	1-10	Page:55

Use any strategy to solve each problem. (Examples 1 and 2)

1. Mrs. Menary made $4\frac{1}{2}$ quarts of lemonade for a school party. How many fluid ounces of lemonade did she make?

2. A class walked 2.5 miles for a walk-a-thon. How many yards did the class walk?

3. The Martinez family has $\frac{3}{4}$ gallon of orange juice in the refrigerator. How many cups of orange juice are in the refrigerator?

4. A grand piano can weigh $\frac{1}{2}$ ton. How many ounces can a grand piano weigh?

5. A female hippopotamus can weigh 48,000 ounces. How many tons can a female hippopotamus weigh?

6. At soccer practice, Tracey's best kick traveled a distance of 1,200 inches. For how many yards did she kick the ball?

7. An elephant can drink up to 6,400 fluid ounces of water a day. How many gallons of water can an elephant drink per day?

8. A recipe for ice cream calls for 56 fluid ounces of milk. How many pints of milk are there in the recipe?

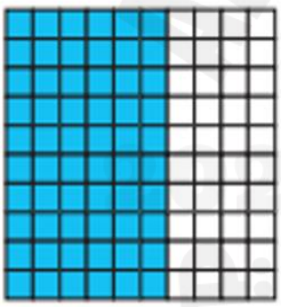
9. One quart of strawberries weighs about 2 pounds. About how many quarts of strawberries would weigh $\frac{1}{4}$ ton?

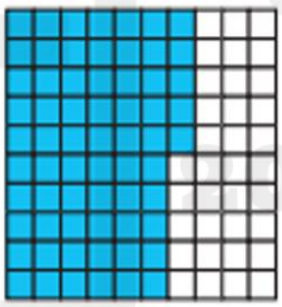
10. **Open Response** A mini fruit juice box contains 4 fluid ounces of juice. You need $2\frac{1}{2}$ quarts of fruit juice. How many mini fruit juice boxes will you need?

12	Model percents using 10 x 10 grids and bar diagrams.	1-8	Page:83

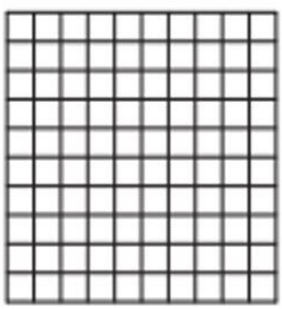
T. Alaa Elatawy

For Exercises 1 and 2, identify the percent represented by each 10 × 10 grid. (Example 1)

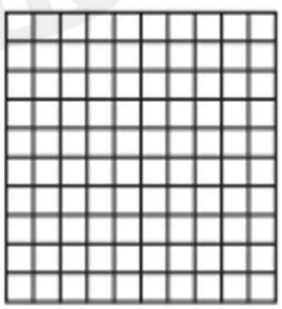
1.  ____

2.  ____

3. In a school survey, 12% of the students surveyed said they like camping. Shade the 10 × 10 grid to model 12%. (Example 2)

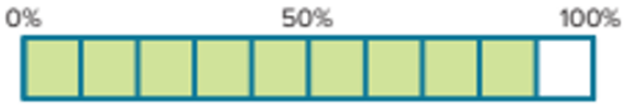


4. Of the students in the lunch line, 9% said they were buying strawberry milk. Shade the 10 × 10 grid to model 9%. (Example 2)

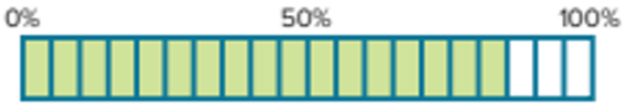


For Exercises 5 and 6, identify the percent represented by each bar diagram. (Example 3)

5. _____

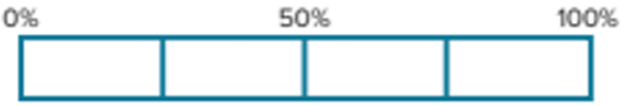


6. _____



Test Practice

7. Shade the bar diagram to model 25%. (Example 4)



8. Open Response How can you use a bar diagram to model 45%?

13	Relate fractions, decimals, and percents by using place-value reasoning and understanding a percent as a ratio that compares a number to 100.	1-13	Page:101

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Write each percent as a fraction in simplest form and as a decimal. (Example 1)

1. 45%

2. 72%

3. 80%

Write each fraction as a percent and as a decimal. (Examples 2 and 3)

4. $\frac{3}{20}$

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

6. $\frac{5}{8}$

Write each decimal as a percent and as a fraction in simplest form. (Example 4)

7. 0.89

8. 0.82

9. 0.65

10. About 0.41 of Hawaii's total area is water. Write 0.41 as a fraction and as a percent.

11. Over the course of the basketball season, Zane's free throw average went up by 30%. Write 30% as a fraction and as a decimal.

12. There are 25 students in Muriel's class. Write a percent to represent the number of students that have brown eyes. Then write the percent as a fraction and as a decimal.

Eye Color	Number of Students
Blue	6
Brown	10
Green	7
Hazel	2

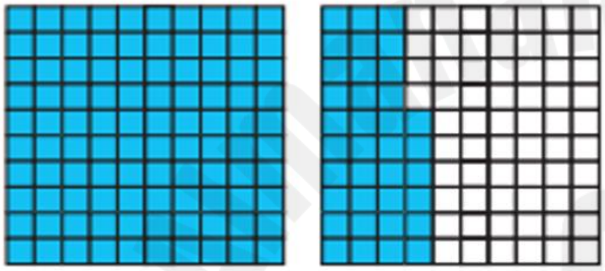
13. Multiselect Which of the following are equivalent to 85%? Select all that apply.

- ☐ 0.85
- ☐ $\frac{85}{100}$
- ☐ 0.8
- ☐ $\frac{17}{20}$
- ☐ 85

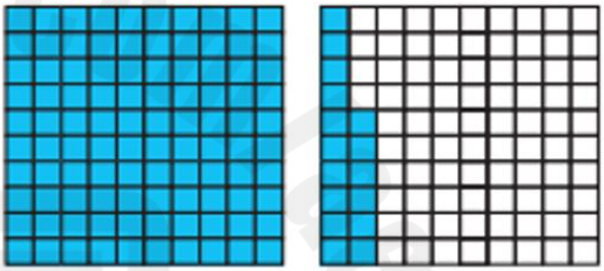
14	Use 10 x 10 grids and bar diagrams to represent percents greater than 100% or less than 1%	1-6	Page:91

Identify the percent represented by the 10 × 10 grids. (Examples 1 and 3)

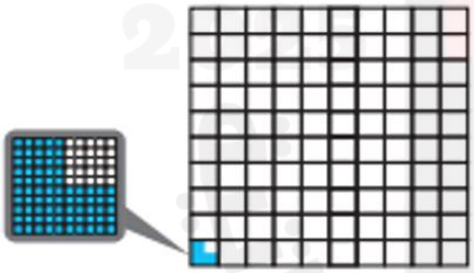
1.



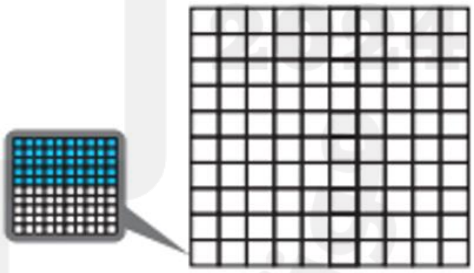
2.



3.

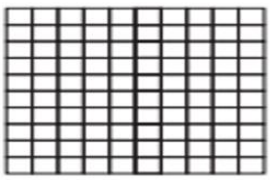


4.



5. The size of a large milkshake is 1.4 times the size of a medium milkshake. Write a percent that compares the size of the large milkshake to the size of the small milkshake. Then draw and shade 10 × 10 grids to model the percent. (Example 2)

6. The Freedom Tower is 1,776 feet tall. Mr. Feeman's students are building a replica of the tower for a class project that will stand 4.44 feet tall. Write a percent that compares the height of the replica to the height of the actual tower. Then shade the 10 × 10 grid to model the percent.



15	Find the whole, geven the part and the percent by using bar diagrams, ratio tables, equivalent ratios, and double number lines.	1-8	Page:127

Use any strategy to solve each problem. (Examples 1 and 2)

1. Yolanda's club requires that 80% of the members be present for any vote. If at least 20 members must be present to have a vote, how many members does the club currently have?

2. Action movies make up 25% of Sara's DVD collection. If she has 16 action DVDs, how many DVDs does Sara have in her collection?

3. Marcus saved $10 because he bought a baseball glove that was on sale for 40% off. What was the original price of the baseball glove?

4. Of the students in the marching band, 55% plan to go to the school dance. If there are 110 students in the marching band that are going to the dance, how many students are in the marching band?

5. Melcher used 24% of the memory card on his digital camera while taking pictures at a family reunion. If Melcher took 96 pictures at the family reunion, how many pictures can the memory card hold?

6. Mallorie has $12 in her wallet. If this is 20% of her monthly allowance, what is her monthly allowance?

7. The table shows the number of minutes Tim has for lunch and study hall. He calculates that these two periods account for 18% of the minutes he spends at school. How many minutes does he spend at school?

Period	Number of Minutes
Lunch	45
Study Hall	45

8. **Open Response** The number of sixth grade students accounts for 35% of the total number of students enrolled in middle school. There are 245 sixth grade students. How many students are enrolled in the middle school?

16	Apply prior knowledge about multiplication, division, and operations on multi-digit numbers to divide whole numbers by fractions.	1-10	Page:165

Find the reciprocal of each number. (Example 1 and Example 3)

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

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

3. 8

4. What number multiplied by $\frac{3}{5}$ has a product of 1? (Example 2)

5. What number multiplied by $\frac{7}{10}$ has a product of 1? (Example 2)

Divide. Write in simplest form. (Example 4)

6. $3 \div \frac{1}{4} =$ _____

7. $4 \div \frac{2}{5} =$ _____

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

9. Marie is making scarves. She has 7 yards of fabric and each scarf needs $\frac{5}{8}$ yard of fabric. Find $7 \div \frac{5}{8}$. Then interpret the quotient. (Example 5)

10. Roberto is at a tennis day camp. The coach has set aside 2 hours to play mini matches that last $\frac{3}{5}$ hour. Find $2 \div \frac{3}{5}$. Then interpret the quotient.

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17	Apply prior knowledge about multiplication and division with whole numbers and the division of whole numbers by fractions to divide fractions by fractions.	8-13	Page:176

8. A teacher is making bags of different colors of modeling clay. The table shows the amount of each color she has available. Each color will be divided into $\frac{3}{16}$-pound bags. How many more bags of purple can she make than yellow?

Color	Weight (lb)
Green	$\frac{1}{2}$
Purple	$\frac{15}{16}$
Red	$\frac{2}{3}$
Yellow	$\frac{3}{4}$

9. Mateo is making bookmarks with different colored ribbon. The amount of each color he has is shown in the table. Each bookmark will be $\frac{1}{6}$-yard long. How many more orange bookmarks can he make than aqua bookmarks?

Color	Length (yd)
Aqua	$\frac{3}{4}$
Orange	$\frac{9}{10}$
Yellow	$\frac{15}{16}$

10. **Make a Conjecture** Can the quotient of two positive fractions be less than 1? Explain.

11. The length of a race is $\frac{9}{10}$ mile. Andrew wants to place a flag every $\frac{1}{3}$ mile. He has 3 flags. Does he have enough flags? Explain.

12. **Persevere with Problems** Lannie has $5\frac{1}{2}$ cups of chocolate chips. She needs $1\frac{3}{4}$ cups to make one batch of chocolate chip cookies. How many batches of chocolate chip cookies can she make?

13. Write a division problem involving the division of two positive fractions whose quotient is equal to 1. Show that your problem is correct.

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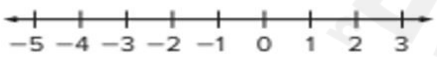
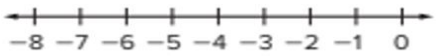
18	Use positive and negative numbers, as well as 0, to represent quantities in everyday life.	15-20	Page:198

15. Rodney is performing a science experiment. The table shows the temperature of two liquids he is using. Graph the integers that represent the temperatures on a number line. Which beaker's liquid is closer to 0°C? Explain.

Beaker	Temperature
A	−4°C
B	2°C



16. Sydney owes her mother $5 and her brother owes her mother $7. Graph the integers that represent the amount they owe their mother as a negative integer on a number line. How much more will her brother have to repay their mother than Sydney? Explain.



17. **Use Math Tools** Explain how to find the distance between 1 and −3 on a number line.

18. At midnight, the outside temperature was 0°F.
    a. By 6:00 A.M., the temperature had dropped 4°F, and then the temperature raised 10°F by noon. What is the temperature at noon?

    b. What represents zero in this situation? Explain.

19. **Create** Describe a real-world situation that can be represented by a negative integer. Then write the integer.

20. **Justify Conclusions** Craig has $28 in his checking account. He wants to make a withdrawal of $30. Will his checking account balance be represented by a positive or negative integer after the withdrawal? Justify your conclusion.

19	Understand that the absolute value of rational numbers shows their distance from 0.and how to order these numbers.	1-14	Page:203

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Find the opposite of each integer. (Example 1)

1. −3

2. 2

3. 6

4. Chad is planting a plant that is 4 inches tall. He wants the hole he is digging to be as deep as the plant is tall. What integer represents the location of the bottom of the hole? How does this compare to the height of the plant? (Example 2)

5. A hill on a dirt bike course is 5 feet tall. The valley below the hill is as deep as the hill is tall. What integer represents the location of the bottom of the valley? How does this compare to the height of the hill? (Example 2)

Find each value. (Examples 2 and 3)

6. −(−15) = _____

7. −(−11) = _____

8. −[−(−7)] = _____

9. −[−(−1)] = _____

10. −[−(55)] = _____

11. −[−(100)] = _____

12. A mountain climber started at sea level and descended down a cliff. Her location can be represented by −75 feet. How many feet did the mountain climber travel? (Example 4)

13. The temperature was −5°F when Tiffany woke up in the morning. By noon, the temperature was 0°F. How many degrees did the temperature change? (Example 4)

14. Multiselect Which of the following represent opposites?

- ☐ −4 and 4
- ☐ −1 and 1
- ☐ −2 and −1
- ☐ 0 and 1
- ☐ −7 and −8
- ☐ 10 and −10

20	Correctly order rational numbers, including integers and absolute values.	1-8	Page:213

1. After playing 18 holes of golf, John's score was −4 and Terry's score was −1. Write an inequality to compare the scores. Then explain the meaning of the inequality. (Example 1)

2. The record low temperature for Buffalo, New York is −20°F. The record low temperature for Chicago, Illinois is −27°F. Write an inequality to compare the record low temperatures. Then explain the meaning of the inequality. (Example 1)

3. The table shows the freezing points for gases. Order the gases from least to greatest according to their freezing points. (Example 2)

Gas	Freezing Points (°C)
Argon	−189
Carbon Monoxide	−205
Ethane	−297
Helium	−272
Oxygen	−219
Sulfur Dioxide	−72

4. The table shows the scores for players in a trivia game after the first round. Order the players from least to greatest according to their scores. (Example 2)

Player	Score
Ace	−11
Diana	3
Jace	−3
Oneida	−7
Nolan	5
Rachel	1

5. Explain why an elevation less than −5 feet represents a distance from sea level greater than 5 feet. (Example 3)

6. Explain why a balance of less than −$10 represents a debt greater than $10. (Example 3)

Test Practice

7. In a golf match, Jesse scored 5 over par, Neil scored 3 under par, Felipe scored 2 over par, and Dawson scored an even par. Order the players from least to greatest score.

8. **Table Item** Order the integers from least to greatest.

$9, -8, -2, 4, -9$

least				greatest

21	Graph rational numbers in the coordinate plane.	1-14	Page:235

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Identify the quadrant in which each point is located. (Example 1)

1. $\left(-1\frac{1}{2}, -2\frac{1}{4}\right)$

2. $\left(5\frac{3}{4}, -6\frac{1}{5}\right)$

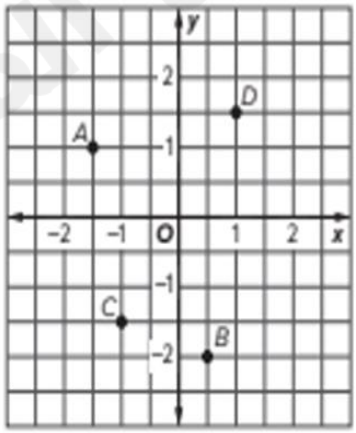
3. $\left(\frac{4}{5}, 3\frac{3}{4}\right)$

4. $\left(-3\frac{1}{2}, 2\frac{4}{5}\right)$

5. Identify the axis on which the point $\left(-\frac{2}{3}, 0\right)$ is located. (Example 2)

6. Identify the axis on which the point $\left(0, 6\frac{3}{5}\right)$ is located. (Example 2)

Use the coordinate plane. Identify the ordered pair that names each point. (Example 3)

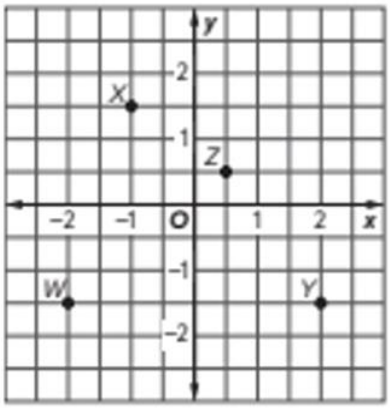


7. A _____

8. B _____

9. C _____

Use the coordinate plane. Identify the point for each ordered pair. (Example 4)

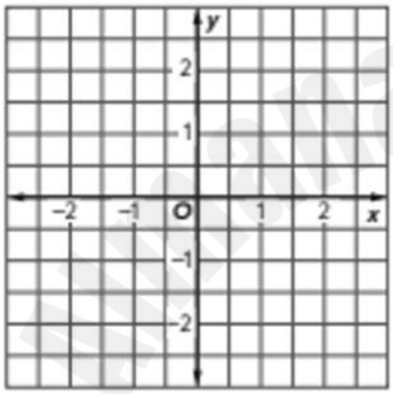


10. $\left(\frac{1}{2}, \frac{1}{2}\right)$ _____

11. $\left(-1, 1\frac{1}{2}\right)$ _____

12. $\left(-2, -1\frac{1}{2}\right)$ _____

13. Graph $A\left(\frac{1}{2}, 1\right)$. (Example 5)



14. Grid Graph $X\left(-1\frac{1}{2}, 2\right)$.