تم تحميل هذا الملف من موقع المناهج الإماراتية

تجميعة أسئلة وفق الهيكل الوزاري منهج ريفيل

تاريخ إضافة الملف على موقع المناهج: 2024-05-24 15:13:27

إعداد: Hassen Tasneem

التواصل الاجتماعي بحسب الصف الرابع

اضغط هنا للحصول على جميع روابط "الصف الرابع"

روابط مواد الصف الرابع على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف الرابع والمادة رياضيات في الفصل الثالث

1	تجميعة أسئلة الكتاب وفق الهيكل الوزاري
2	تجميعة أسئلة وفق الهيكل الوزاري منهج ريفيل
3	الهيكل الوزاري الحديد منهج ريفيل المسار العام
4	الهيكل الوزاري الحديد منهج بريدج المسار العام
5	حل تدريبات الوحدة 13 البيانات والوحدة 14 القياس والوحدات

المزيد من الملفات بحسب الصف الرابع والمادة رياضيات في الفصل الثالث	
	المترية

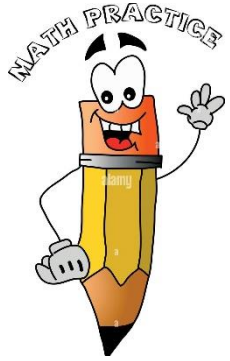
EOT 3- Exam Coverage-

Grade 4-

Miss Tasneem Hassen

Al Maseera School

2024



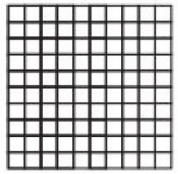
Part 1 type questions	**درجة ألسئلة الموضوعية** **MCQ- 4 marks per question**	**عدد ألسئلة الموضوعية** **Number of questions: 15**	$15 \times 4 = 60\ Marks$

U12-1	Understand Tenths and Hundredths	Question (1-9) Question 10	Page 133 Page 154

How can you shade the grid to represent the fraction?

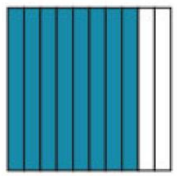
1. $\frac{6}{10}$

2. $\frac{40}{100}$

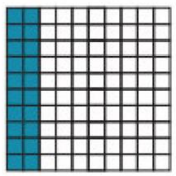


What fraction does the grid represent?

3. $\frac{\square}{\square}$



4. $\frac{\square}{\square}$



How can you express the fraction as an equivalent fraction with a denominator of 10 or 100? Complete the equation.

5. $\frac{70}{100} = \frac{7}{\square}$

6. $\frac{\square}{100} = \frac{5}{10}$

7. $\frac{2}{10} = \frac{\square}{\square}$

8. $\frac{\square}{\square} = \frac{60}{100}$

9. Which of these are equivalent to a fraction with a denominator of 10? Choose all that apply.

A. $\frac{3}{100}$

B. $\frac{10}{100}$

C. $\frac{25}{100}$

D. $1\frac{40}{100}$

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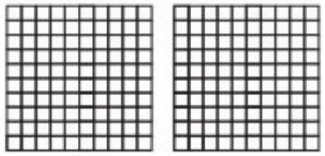
10. What number makes the equation true? (Lesson 12-1)

$\frac{50}{100} = \frac{\square}{10}$

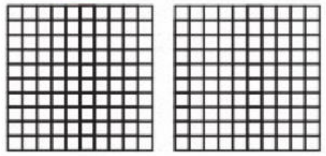
U12-3	Compare Decimals	Question (1-8) Question (9-12)	Page 141 Page 142

How can you use the representations to compare the decimals? Complete with >, <, or =.

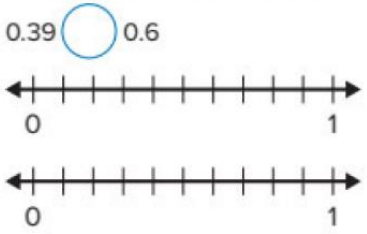
1. 0.01 ◯ 0.11



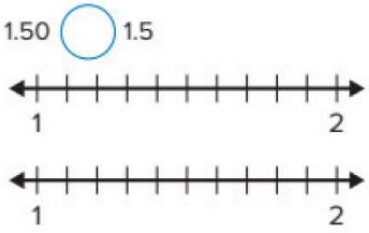
2. 0.9 ◯ 0.09



3. 0.39 ◯ 0.6



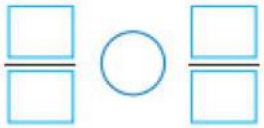
4. 1.50 ◯ 1.5



How can you express the decimals as fractions to compare? Write the fractions, and complete with >, <, or =.

5. 0.62 ◯ 0.26

6. 0.57 ◯ 0.7



What comparison statement can you write for the decimals? Explain your thinking.

7. 0.27 and 0.4

8. 1.4 and 0.63

9. Which comparisons are true? Choose all that apply.

A. $0.4 = 0.04$

B. $0.78 < 0.9$

C. $0.27 > 0.3$

D. $2.51 > 2.3$

10. Error Analysis Mandy writes $2.30 > 2.3$ because 30 is greater than 3. How would you respond to Mandy?

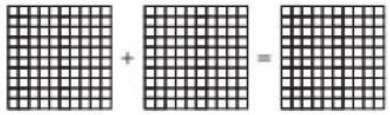
11. Carter bought 0.72 pound of apples and 0.58 pound of bananas. Which weighed more, the apples or the bananas? Explain your thinking.

12. Extend Your Thinking James compares two decimals that have the same digits. Part of his comparison is shown. What could be the other number in James's comparison? Justify your answer.

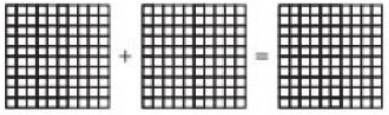
1.82 > _____. _____ _____

How can you use the representation to find the sum?

1. $\frac{2}{10} + \frac{11}{100} = \frac{\square}{\square}$



2. $\frac{42}{100} + \frac{1}{10} = \frac{\square}{\square}$



What is the sum? Explain your work.

3. $\frac{4}{10} + \frac{9}{100} = \frac{\square}{\square}$

4. $\frac{53}{100} + \frac{3}{10} = \frac{\square}{\square}$

5. $\frac{2}{10} + \frac{13}{100} = \frac{\square}{\square}$

6. $\frac{21}{100} + \frac{7}{10} = \frac{\square}{\square}$

7. Keegan walks $\frac{5}{10}$ mile to meet his friend. Then Keegan and his friend walk $\frac{35}{100}$ mile to the park. How far did Keegan walk in all?

8. Which addition problems have a sum of $\frac{62}{100}$? Choose all that apply.

   A. $\frac{6}{10} + \frac{2}{100}$

   B. $\frac{6}{100} + \frac{2}{10}$

   C. $\frac{4}{10} + \frac{22}{100}$

   D. $\frac{4}{10} + \frac{58}{100}$

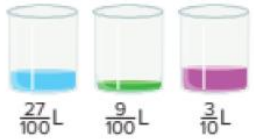
9. **STEM Connection** Grace notes that $\frac{7}{10}$ of her computer's memory is filled. She opens a new program that takes $\frac{23}{100}$ of the computer's memory. What fraction of her computer's memory is full?

10. Complete the following addition problem. Justify your answer.

$\frac{\square}{10} + \frac{\square}{100} = \frac{54}{100}$

11. Ling paints $\frac{6}{10}$ of a mural on Saturday. She paints $\frac{25}{100}$ of the mural on Sunday. What fraction of the mural did she complete?

12. **Extend Your Thinking** Two liquids were combined into an empty beaker. The beaker now has more than $\frac{1}{2}$ liter of liquid in it. Which two liquids were combined? Explain.



U13-1	Relate Metric Units	Question (1-11) Question (12-15)	Page 163 Page 164

How can you convert the metric units? Complete the equation.

1. 12 meters = ? centimeters
   12 × _____ = 1,200
   12 meters = _____ centimeters

2. 8 kilograms = ? grams
   8 × _____ = 8,000
   8 kilograms = _____ grams

3. 14 centimeters = _____ millimeters

4. 25 liters = _____ milliliters

5. 4 centimeters = _____ millimeters

6. 6 meters = _____ millimeters

7. 10 liters = 10,000 _____

8. 200 meters = 20,000 _____

9. How many milliliters of water will fill the tea ettle? Explain.

10. An inchworm crawls 3 meters. What are two other ways to represent the same distance using smaller units?

11. A box of printer paper weighs 9 kilograms. Does the box weigh more than 9,000 grams?

12. In 6 kilometers, there are 6,000 meters. Why does the number with the measurement units increase from 6 to 6,000?

13. Would it be easier to lift the weight shown or one that weighs 5,000 grams? Explain.

14. **STEM Connection** Noah measures 2 liters of fluids What is the equivalent amount of fluids in milliliter ?

15. **Extend Your Thinking** Asher runs a 1,000-meter race and his mother runs a 5-kilometer race. How far do they run in all?

U13-2	Relate Customary Units of Weight	Question (1-11) Question (12-15)	Page 167 Page 168

What number makes the equation true?

1. 5 pounds = ? ounces

   5 × _____ = 80

   5 pounds = _____ ounces

2. 8 tons = ? pounds

   8 × _____ = 16,000

   8 tons = _____ pounds

3. 4 pounds = _____ ounces

4. 5 tons = _____ pounds

5. _____ ounces = 6 pounds

6. _____ pounds = 7 tons

7. 10 pounds = 160 _____

8. 20 tons = 40,000 _____

9. Mike bought 7 pounds of tomatoes to make a batch of pizza sauce. What is the weight of the tomatoes in ounces?

10. There are 160 ounces of potatoes in a 10-pound bag. Why is the number of ounces greater than the number of pounds?

11. A minivan weighs 3 tons. A truck weighs 8,000 pounds. Which vehicle weighs more? Explain.

12. Jack bought $1\frac{1}{2}$ pounds of bananas. What is the weight of the bananas in ounces?

13. A truck weighs $2\frac{3}{4}$ tons. What is the weight of the truck in pounds?

14. Mark delivered 1 ton of fertilizer to the botanical garden. Each day they spread 50 pounds of fertilizer on the plants. How many days will it take to spread all the fertilizer? Explain.

15. **Extend Your Thinking** Reeb's Market offers a 10-pound watermelon for $5. Sally's Produce Stand offers a 165-ounce watermelon for $5 also. Which is the better buy? Explain.

U13-3	Relate Customary Units of Capacity	Question (1-10) Question (11-14)	Page 171 Page 172

Complete the table.

1.

Cups (c)	Fluid Ounces (fl oz)
1	8
2	
3	
4	
5	

2.

Quarts (qt)	Pints (pt)
1	2
2	
3	
4	
5	

What number makes the equation true?

3. 6 cups = _____ fluid ounce

4. 8 quarts = _____ pints

5. _____ quarts = 4 gallons

6. _____ cups = 7 pints

7. Jerry's coffee pot holds 4 cups of coffe . How many fluid ounces does the pot hold?

8. The baseball teams drink 10 gallons of water at a tournament. How many quarts of water do they drink?

9. Kelly's juice recipe uses 16 quarts of water. How many gallons does her recipe use?

10. Ben used 40 pints of water to fill hi new aquarium. How many quarts does the aquarium hold?

11. Kayla has a pitcher that holds 18 pints and a punch bowl that holds 3 gallons. Which holds more? Explain your answer.

12. Jack used $2\frac{1}{2}$ quarts of oil for the lawnmower. How many pints of oil did he use? Explain how you found the solution.

13. Celia made 12 quarts of lemonade. She is filling bottles that can hold 2 cups. How many bottles can she fill? Explain

14. **Extend Your Thinking** Geraldo can fill 7 cups every 30 seconds from his indoor faucet. He can fill 2 quarts every 30 seconds from his outdoor faucet. Which faucet would fill a bucket faster? Explain.

U13-4	Convert Units of Time	Question (1-10) Question (11-15)	Page 175 Page 176

What number makes the equation true?

1. 5 hours = ? minutes
   5 × _____ = 300
   5 hours = _____ minutes

2. 10 minutes = ? seconds
   10 × _____ = 600
   10 minutes = _____ seconds

3. 7 hours = _____ minutes

4. 6 minutes = _____ seconds

5. _____ hours = 360 minutes

6. _____ hours = 900 minutes

7. Salma volunteered for 4 hours last weekend. How many minutes did Salma volunteer?

8. When a timer reads 8 minutes, that is 480 seconds. Why is the number of seconds greater than the number of minutes?

9. Lola sang a song that was 4 minutes long. Selina sang a song that was 220 seconds long. Who sang longer? Explain.

10. Nathan and Chad are running in a $\frac{1}{2}$-mile relay race. Chad runs the first part in 3 minutes. Nathan runs the second part i 150 seconds. Who took longer? How much longer?

11. **Error Analysis** Kyle converted $4\frac{1}{4}$ hours to 244 minutes. Do you agree with Kyle? Explain.

12. Leann spent 3 hours online last week. If she spent the same amount of time online each of 5 days, how many minutes would she spend online in a day?

13. Diane boiled an egg for $9\frac{1}{2}$ minutes. For how many seconds did she boil the egg?

14. Stacy reads a page in 3 minutes. How many seconds does it take?

15. **Extend Your Thinking** There are 24 hours in one day. Explain how many minutes there are in one week.

Solve the problem.

1. Lacey walks $1\frac{1}{2}$ kilometers to school. Hsu walks 2 kilometers to school. How many meters do Lacey and Hsu walk in all?

2. Jeanette made 6 liters of soup. She serves 5,500 milliliters of the soup. How many milliliters of the soup remain?

3. A restaurant owner buys 8 sacks of potatoes. Each sack of potatoes has a mass of 5 kilograms. How many grams of potatoes does he buy?

4. Niamh has 320 centimeters of red ribbon and 6,300 millimeters of blue ribbon. How many more millimeters of blue ribbon than red ribbon does she have?

5. **STEM Connection** Saffron ma es a recipe that calls for 100 milliliters of olive oil. How many times can she make the recipe with 1 liter of olive oil? Justify your answer.

6. Sylvia has 30 milliliters of red dye and 40 milliliters of yellow dye. If she mixes them, how many milliliters of orange dye will she have?

7. Terrance wants to buy a melon that weighs 3,950 grams. His bag can hold 4 kilograms without tearing. Can he carry the melon in his bag? Explain.

8. A boy is 2 meters tall. His sister is one-half of his height. How many centimeters tall is his sister?

9. A jug can hold 1 liter of water. There are 820 milliliters of water in the jug. How many more milliliters of water is needed to fill the jug?

10. **Extend Your Thinking** Olivia can buy 1 kilogram of berries at the store for $10 or she can buy 100 grams for $0.50 at the farmer's market. Which is a better buy?

U13-6	Solve More Problems That Involve Units of Measure	Question (1-6) Question (7-10)	Page 185 Page 186

Solve the problem.

1. Derinda's dog weighs 4 pounds. Elizabeth's dog weighs $5\frac{1}{4}$ pounds. What is the combined weight of the two dogs in ounces?

2. Fasil makes 3 gallons of soup. He puts the soup in 1-quart containers. How many containers can he fill

3. Jasmine has $3\frac{2}{3}$ yards of lace for 5 pillows. She uses 20 inches of lace for each pillow. How much lace does she have left?

4. Helen worked in the garden from 2:20 p.m. to 6:15 p.m. How many minutes did she work in the garden?

5. A vine grows $\frac{1}{2}$ foot each week. How many inches does it grow in 6 weeks?

6. Hannah has 3 quarts of blueberries and 7 pints of raspberries. How many pints of berries does she have?

7. How much more does a $6\frac{1}{2}$-ton elephant weigh than an 8,000-pound hippopotamus?

8. One soccer game ends at 10:15 a.m. and the next soccer game starts at 1:20 p.m. How many minutes are there between the games?

9. Jess swam 400 yards in 14 minutes. Christina swam 960 feet in the same amount of time. Who swam faster? Explain.

10. **Extend Your Thinking** A concert is from 12:15 p.m. to 2:45 p.m. A movie lasts 2 hours and 8 minutes. The movie ends at 2:24 p.m. What time did the movie start? How much longer was the concert? Explain your thinking.

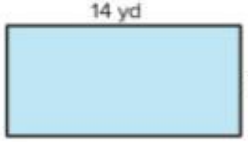
U13-7	Solve Problems Using a Perimeter Formula	Question (1-9) Question (10-12)	Page 189 Page 190

What is the missing value?

1.

$P =$ _____ ft

2.



$P =$ _____ yd

3. $l = 10$ miles, $w = 4$ miles

$P = 2 \times (10 +$ _____ $)$

$P =$ _____ miles

4. $l = 5$ km, $w = 2$ km

$P = (2 \times 5) + (2 \times$ _____ $)$

$P =$ _____ km

5. $l = 8$ m, $w = 5$ m

$P =$ _____ m

6. $l = 5$ units, $w = 5$ units

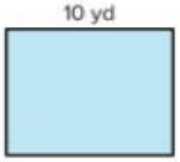
$P =$ _____ units

7.

$P = 24$ inches

$w =$ _____ inches

8.



$P = 36$ yd

$w =$ _____ yd

9. A rectangular playground has a length of 72 feet and a width of 36 feet. What is the perimeter?

10. A rectangular piece of paper has a length of 8 inches. Its perimeter is 32 inches. What is the width of the paper?

11. A rectangular tablecloth has a width of 60 inches. The length is $1\frac{1}{2}$ times the width. What is the perimeter? Justify your solution.

12. **STEM Connection** Sam designs a rectangular building with one side measuring 1,000 meters and a perimeter of 2,800 meters. What is the length of the other side? Explain.

U13-8	Solve Problems Using an Area Formula	Question (1-10) Question (11-15)	Page 193 Page 194

What is the area?

1. 7 ft, 5 ft

$A =$ _____ square ft

2. 15 yd, 7 yd

$A =$ _____ square yd

3. $l = 12$ meters, $w = 6$ meters

$A =$ _____ square meters

4. $l = 25$ km, $w = 4$ km

$A =$ _____ square km

5. $l = 8$ cm, $w = 5$ cm

$A =$ _____ square cm

6. $l = 22$ miles, $w = 5$ miles

$A =$ _____ square miles

What is the missing value?

7. 4 miles

$A = 44$ square miles

$l =$ _____ miles

8. 7 in.

$A = 49$ square inches

$w =$ _____ inches

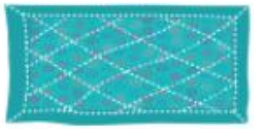
Solve the problem.

9. A rectangular garden has a width of 9 feet and an area of 144 square feet. What is the length of the garden?

10. A square piece of cardboard has a side length of 18 inches. What is the area of the piece of cardboard? Show your work.

11. A rectangular park has an area of 60 square miles. What are 3 possible length and width combinations? How did you find your answer?

12. If the width of the blanket is half the length, what is the area of the blanket?



60 in.

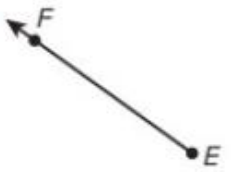
13. Error Analysis The side lengths of a square are 6 units each. Marcus says the area of the rectangle is 24 square units. How can you explain his error?

14. The area of a rectangular parking lot is 2,500 square feet. If the length of the parking lot is 100 feet, what is the width?

15. Extend Your Thinking The perimeter of a rectangle is 24 feet. What could be the area? Find 3 possible answers.

U14-1	Understand Lines, Line Segments, and Rays	Question (1-9) Question (10-12)	Page 217 Page 258

How can you name the figure? Write the name that best describes it.

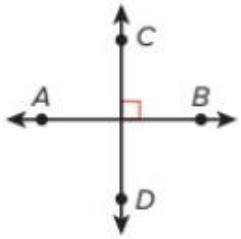
1. 

2.

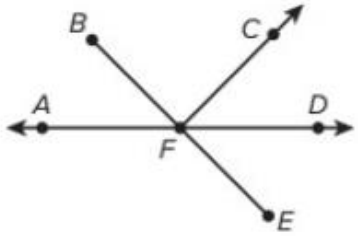
3.

What name best describes the part of the figure containing the given points? Write the name of the figure.

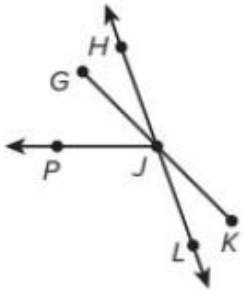
4. Contains points *A* and *B*



5. Contains points *C* and *F*



6. Contains points *G* and *J*

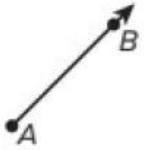


Draw the figure.

7. Line segment *UV* ($\overline{UV}$)
8. Ray *TS* ($\overrightarrow{TS}$)
9. Line *JK* ($\overleftrightarrow{JK}$)

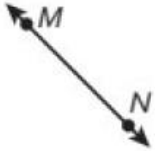
Review

10. What name best describes the figur ? (Lesson 14-1)



11. What name best describes the figur ? (Lesson 14-1)

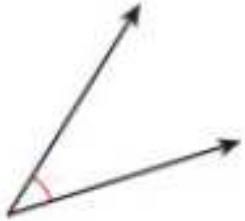
12. What name best describes the figur ? (Lesson 14-1)



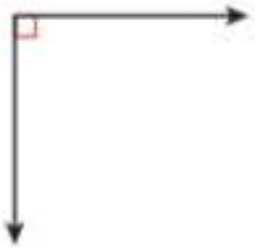
How can you classify the angle? Explain your thinking.

4.

5.



6.



Draw the angle.

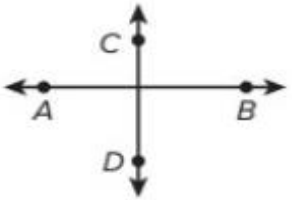
7. Right

8. Acute

9. Obtuse

How can you describe the pair of lines shown? Label the pair of lines as parallel, perpendicular, or neither.

1.



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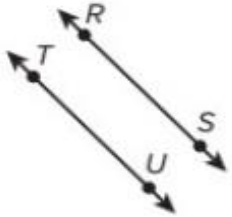
2.



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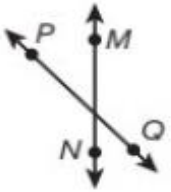
3.



_____

Draw a pair of lines that match the description.

4. Perpendicular

5. Intersecting, but not perpendicular.

6. Parallel

What capital letter of the alphabet matches the description?

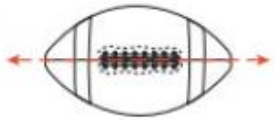
7. Includes perpendicular and parallel lines

8. Includes perpendicular lines, but not parallel lines

9. Includes parallel lines, but not perpendicular lines

U14-9	Understand Line Symmetry	Question (1-8) Question (9-11)	Page 251 Page 252

Does the dashed line show a line of symmetry?

1. 

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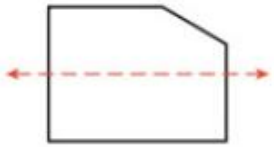
2. 

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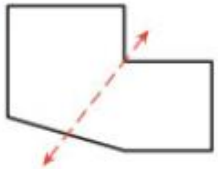
3. 

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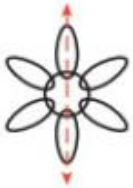
4. 

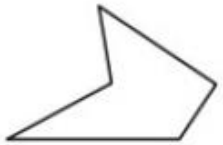
_____

5. Does a rectangle have a line of symmetry? Explain.

6. Does a pentagon with equal side lengths have a line of symmetry? Explain.

Is the figure symmetrical? How do you know?

7.

8. 

9. How many lines of symmetry are shown on the equilateral triangle?

_____

Complete the figure to make a symmetrical figure.

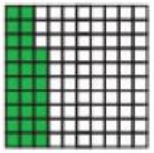
10.

11.

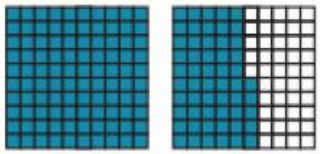
Part 2 type questions	درجة ألسئلة الموضوعية FRQ- 5-10 marks per question	عدد ألسئلة الموضوعية Number of questions: 5	40 *Marks*

U12-2	Understand Decimal Notation	Question (1-6) Question (12,16-18)	Page 137 Page 154

What number does the model represent? Write it as a fraction or mixed number and as a decimal.

1. 

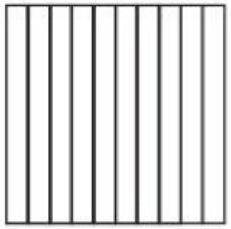
2.

3. 

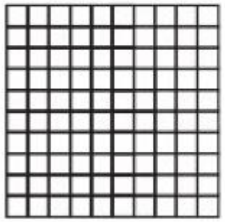
4.

How can you shade the grid to represent the decimal?

5. 0.8

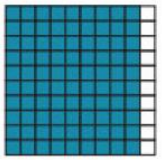


6. 0.67



12. Jennifer walked 0.83 miles on the treadmill. What fraction represents the distance she walked? (Lesson 12-2)

16. What are two fractions and two decimals that can be represented by the following decimal grid? (Lesson 12-2)



17. Which numbers are equivalent to the fraction $\frac{80}{100}$? Choose all that apply. (Lesson 12-2)

A. $\frac{8}{100}$ B. $\frac{8}{10}$

C. 0.8 D. 0.08

E. 0.80

18. What fraction is equivalent to the decimal 0.41? (Lesson 12-2)

U12-5	Solve Problems Involving Money	Question (1-7) Question (8-11)	Page 151 Page 152

What decimal represents the total amount of money?

1.

$ _____

2.

$ _____

3.

$ _____

4.

$ _____

5. Marnie has the amount shown. Her mom gives her a one-dollar bill and 2 dimes. How much money does Marnie have now?

6. John has the amount shown. He spends $1.25. How much money does John have now?

7. Sergio wants to buy a snack for $1.75. He has a one-dollar bill, 6 dimes, and 7 pennies. Does he have enough money to buy the snack? Explain.

8. Roger buys 2 pieces of pizza. He hands the cashier $2.00. What coins could Roger receive back in change?

9. Sally has 9 one-dollar bills, 12 dimes, and 5 pennies. Earl has a ten-dollar bill, 1 dime, and 5 pennies. Who has more money? Justify your answer.

10. Sarah spent exactly $8.00 on school supplies. What supplies could Sarah have bought?

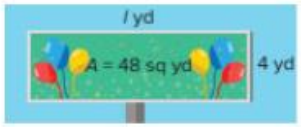
Supply	Price
pencil	$0.50
notebook	$1.00
folder	$0.75
calculator	$5.00

11. Mia has 4 quarters and some dimes. She has $1.80. How many dimes does Mia have? Justify your answer.

U13-9	Solve Problems Involving Perimeter and Area	Question (1-6) Question (7-10)	Page 197 Page 198

What is the unknown measurement?

1. A billboard has the following measurements.



a. What is the length of the billboard?

$48 = l \times 4$

$l =$ _____ yd

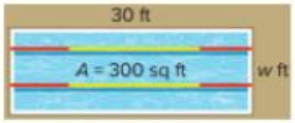
b. What is the perimeter?

$P = 2 \times (_____ + 4)$

$P = 2 \times$ _____

$P =$ _____ yd

2. A lap pool has the following measurements.



a. What is the width of the lap pool?

$300 = 30 \times w$

$w =$ _____ ft

b. What is the perimeter?

$P = 2 \times (30 + _____)$

$P = 2 \times$ _____

$P =$ _____ ft

3. A rectangular koi pond has an area of 12 square feet and a width of 2 feet. What is the length and perimeter?

$l =$ _____ ft $P =$ _____ ft

4. A rectangular rug has an area of 15 square feet and a width of 3 feet. What is the length and perimeter?

$l =$ _____ ft $P =$ _____ ft

5. A rectangular greenhouse has a perimeter of 40 feet and length of 10 feet. What is the area?

$A =$ _____ sq ft

6. A square frame has an area of 400 square inches. What are the side lengths?

$l =$ _____ in.

7. A rectangular park has an area of 12 square miles. What are 3 possible perimeters in miles? Justify your solutions.

8. A gardener has 60 inches of edging material to surround a rectangular flowerbed. What is the greatest possible area of the flowerbed? Justify your solution

9. STEM Connection Sam designs a rectangular building. The area is 360,000 square feet. The length of the building is 900 feet. What are 3 possible widths? Explain.

10. Extend Your Thinking If the length and width of a rectangle are doubled and then doubled again, how does the area and perimeter change each time?

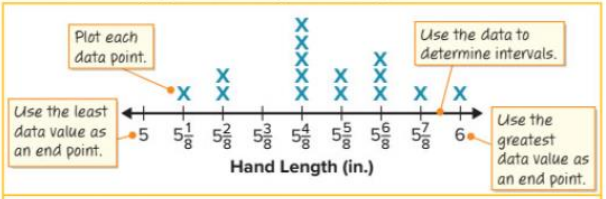
U13-10	Display and Interpret Data on a Line Plot	Learn + work together Question (1-6) Question (7-9)	Page 200 Page 201 Page 202

Learn

Kade measured the hand lengths of her class to the nearest eighth inch.

Length (in.)	$5\frac{6}{8}$	$5\frac{1}{8}$	$5\frac{2}{8}$	$5\frac{4}{8}$	5	$5\frac{5}{8}$	$5\frac{7}{8}$	$5\frac{3}{8}$	6
Count	3	1	2	5	0	2	1	0	1

How can Kade display the hand lengths in a line plot?



You can interpret data displayed on the line plot and draw conclusions.

- The difference between the longest and shortest hand length is $\frac{7}{8}$ inch: $6 - 5\frac{1}{8} = \frac{7}{8}$.
- The most common hand length was $5\frac{4}{8}$ inches.
- No one had a hand length of 5 inches or $5\frac{3}{8}$ inches.

Math is... Thinking
How does a line plot help you analyze data?

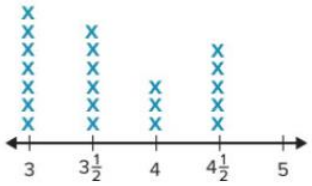
You can use a line plot to display measurement data. You can interpret measurement data displayed on the line plot to answer questions.

Work Together

The table shows the lengths of a set of pencils.
How can you display the data in a line plot?

Length (in.)	$4\frac{3}{4}$	5	$4\frac{1}{4}$	$4\frac{2}{4}$
Count	4	2	3	1

Use the line plot for exercises 1–4.

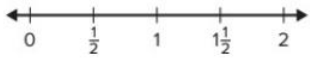


Mr. Cobey's Class
Long Jump Distances (ft)

1. What was the greatest distance jumped?
2. How many students jumped 4 feet or greater?
3. How many students jumped $4\frac{1}{2}$ feet?
4. How many students jumped $3\frac{1}{2}$ feet?

Use the data for exercises 5 and 6.

5. The table shows the time Jackson spent practicing the saxophone each day. Display the data on a line plot.



Saxophone Practice (hours)	
Monday	$1\frac{1}{2}$
Tuesday	0
Wednesday	$\frac{1}{2}$
Thursday	1
Friday	1
Saturday	0
Sunday	$1\frac{1}{2}$

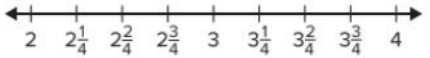
6. How many hours did Jackson practice in all?

_____ hours

The table shows the distances Kireka's family hiked each day during a family vacation. Use the data in the table for exercises 7–10.

Distance Hiked (miles)	
Monday	$3\frac{1}{4}$
Tuesday	2
Wednesday	$3\frac{2}{4}$
Thursday	$2\frac{1}{4}$
Friday	4
Saturday	$2\frac{3}{4}$
Sunday	$3\frac{1}{4}$

7. Draw a line plot to display the data.



8. Which distance was most frequently hiked?

_____ miles

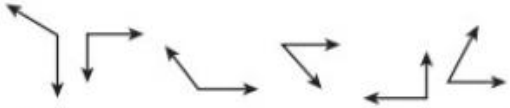
9. What is the difference between the longest and shortest distance Kireka's family hiked?

_____ miles

U14-2	a) Classify Angles	Learn Question (1-3)	Page 220 Page 221

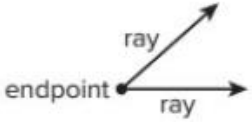
Learn

Ling is sorting some shapes.

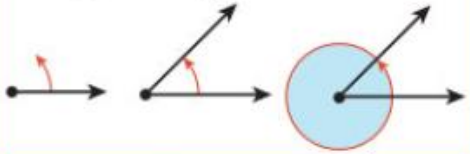


How can Ling sort the shapes?

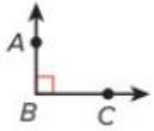
An **angle** is formed when two rays have the same endpoint.



Angles are measured by the amount of rotation, or turning, along a circle from one ray of the angle to the other.



$\angle ABC$ is a right angle.



In a **right angle**, the amount of rotation is $\frac{1}{4}$ of a whole circle.

$\angle PQR$ is an obtuse angle.

An **obtuse angle** has a measure that is greater than the measure of a right angle.

$\angle LMN$ is an acute angle.

An **acute angle** has a measure that is less than the measure of a right angle.

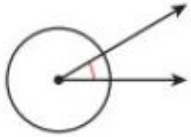
Ling can group the angles by their properties.

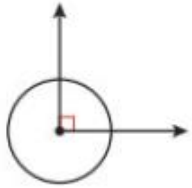
Math is... Choosing Tools

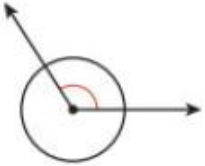
How do the drawings help you understand the concept of an angle?

An angle is formed when two rays share a common endpoint.

How can you describe the amount of rotation?

1. 

2. 

3. 

U14-5	b) Add and Subtract Angle Measures	Learn Question (1-5) Question (6-9)	Page 232 Page 233 Page 234

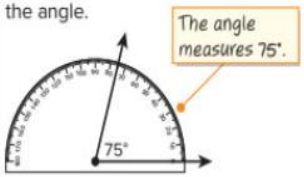
Learn

Yuma cuts a watermelon slice into 2 pieces.

What could be the angle measurement of each piece?

You can draw an angle to represent the angle of the watermelon slice.

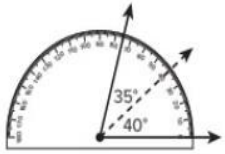
Use a protractor to measure the angle.



You can draw a ray inside the angle to partition the angle into two smaller angles.

The measure of the first angle is 40°.

The sum of the measures of the two smaller angles is 75°.



$40° + ? = 75°$ The measure of the second angle is 35°.

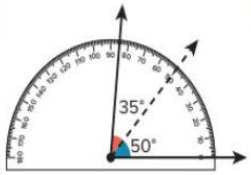
An angle can be partitioned into smaller angles. The sum of the smaller angles is equal to the measure of the original angle.

Math is... Quantities

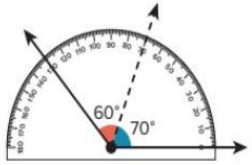
How does the equation represent the decomposed angle?

What is the sum of the two angles?

1.

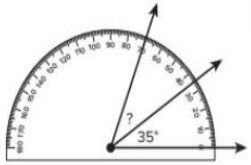


2.



What is the measure of the unknown angle?

3.



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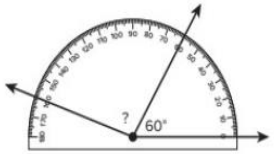
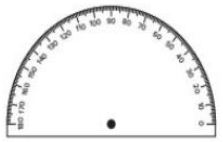
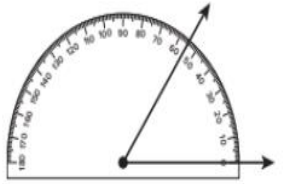


5. Gabriela drew a ray inside an obtuse angle to partition the angle into two acute angles. What is a possible measure of the obtuse angle and the two acute angles? Use the protractor to draw the angles.

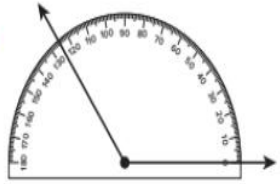


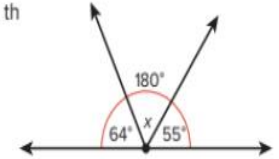
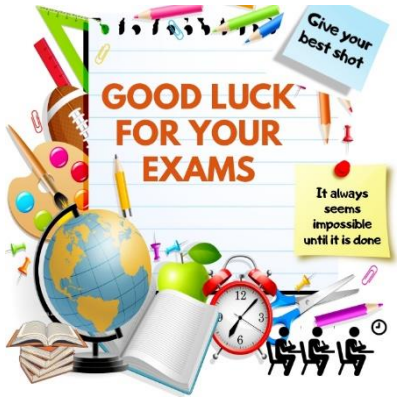
How can the angle be partitioned into two smaller angles? Write possible angle measurements for the two smaller angles.

6.



7.



8. **Error Analysis** Andy wants to cut the orange slice into two smaller pieces. He says that 45° and 55° are possible angle measurements. Do you agree with Andy? Explain why or why not.

9. **Extend Your Thinking** How can you find th measure of the unknown angle?