topic 2 guided practice
Apr 21, 8:00am - Apr 24, 2020, 4:00pm
Given by Pat Ours for Mathematics 7
Complete pages 1-10

2. Ratios and rates

Practice > Guided practice 1 2 3 4 5 6 7 8 9 10

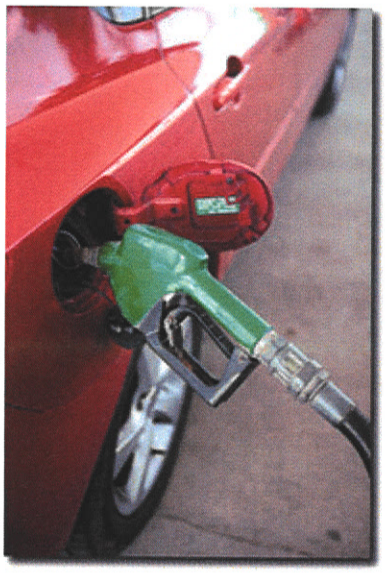
MCSA 2. Ratios and rates > Practice > Guided practice (page 1)

You and your family are driving to the Wild Animal Park in Escondido, CA. The distance from your house to the park is 528 miles. You hope to get there in 8 hours of driving time. What would be your average driving speed?

A. 70 mph B. 65 mph C. 64 mph D. 66 mph

MCSA 2. Ratios and rates > Practice > Guided practice (page 2)

After your 528 mile trip to Escondido you fill your car with gas. The car was full of gas when you left home. It takes 16 gallons to fill your car in Escondido. What gas mileage did you get on the trip?



A. 33 mpg

B. 30 mpg

C. 42 mpg

D. 30.3 mpg

E. 8.4 mpg

MCSA 2. Ratios and rates > Practice > Guided practice (page 3)

In Escondido, the unit price of gas is $3.31. Since you used 16 gallons of gas, how much was the total cost at the gas station?

A. $20.69

B. $52.96

C. $48.34

D. $33.31

E. $66.62

MSQ 2. Ratios and rates > Practice > Guided practice (page 4)

Just outside of the animal park, there is a strawberry farm where you can pay to pick strawberries. The picking boxes cost $0.75 per box and each box holds about a quarter-pound of strawberries. Complete the statements below by selecting the appropriate responses to fill in the blanks.

If you have $5 to spend on picking boxes, you can buy at most slot1 boxes. If you fill each of the boxes your buy, you will have about slot2 pound(s) of strawberries.

Students choose one for each slot.

Choice Set A : choices for slot 1

A. 3

B. 4

C. 6

D. 7

Choice Set B : choices for slot 2

E. three quarters of

F. one

G. one and a half

H. two

DND 2. Ratios and rates > Practice > Guided practice (page 5)

Shawna can pick $4\frac{1}{2}$ quarts of strawberries in $\frac{3}{4}$ hours. Slide the tiles to complete the rate table and identify two unit rates for this situation.

Quarts	$4\frac{1}{2}$	$1\frac{1}{2}$	B	1
Hours	$\frac{3}{4}$	A	1	C

Unit rates: D quarts per hour OR E hours per quart

Tiles:

Tile1 $\frac{1}{6}$

Tile2 $\frac{1}{4}$

Tile3 $3\frac{3}{8}$

Tile4 $4\frac{3}{4}$

Tile5 6

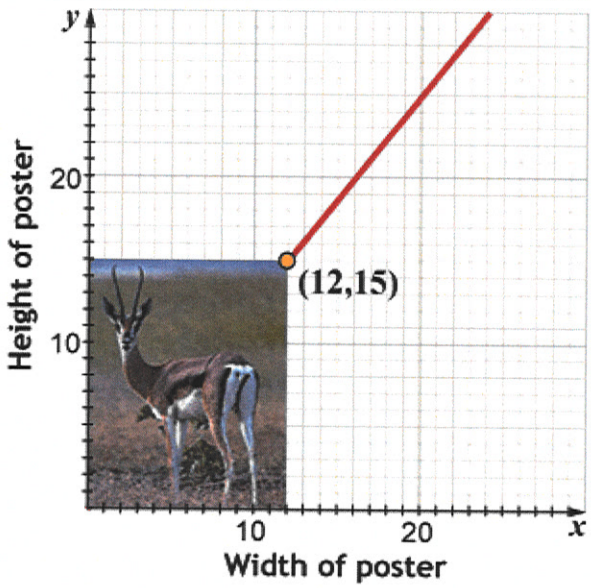
FIB 2. Ratios and rates > Practice > Guided practice (page 6)

Shawna can pick $4\frac{1}{2}$ quarts of strawberries in $\frac{3}{4}$ hours. Fill in the blank to complete the statement. You can enter a whole number, a simplified fraction, or a simplified mixed number.

At this rate, Shawna can pick 2 gallons (8 quarts) of strawberries in A hours.

DND 2. Ratios and rates > Practice > Guided practice (page 7)

Remember the trip to the Wild Animal Park? When you get to the park, you go into the gift shop. It sells different sized posters of animals in the park. All the posters are proportional to each other. The smallest poster has a width of 12 inches and a height of 15 inches. The graph shows the relationship between the height and width of the posters. Use the graphs to determine the constant of proportionality of height to width, in simplified form. Drag tiles to fill in the blanks.



A

Constant of proportionality: _____

B

Tiles:

Tile1 5
Tile2 4
Tile3 3
Tile4 6
Tile5 2

FIB **2. Ratios and rates > Practice > Guided practice (page 8)**

In the previous question, you found the constant of proportionality in the relationship between the height and width of posters in the gift shop. Remember that the smallest poster has a width of 12 inches and a height of 15 inches. All the posters are proportional to each other. Find an equation that relates the height of the posters, y, and the width of the posters, x. Fill in your answer as an integer, a simplified fraction, a mixed number, or a decimal. Use a / for fraction notation.

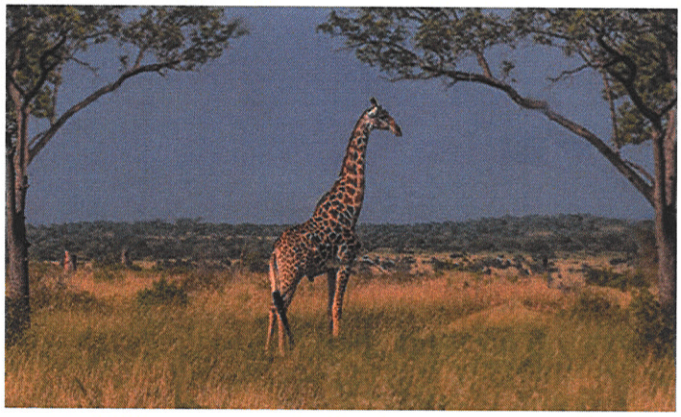
$y =$ A x

MCSA **2. Ratios and rates > Practice > Guided practice (page 9)**

The smallest poster in the gift shop has a width of 12 inches and a height of 15 inches. The largest poster has a width of 32 inches. What is the height of the largest poster?

A. 35 inches
B. 30 inches
C. 45 inches
D. 40 inches
E. 64 inches

DND **2. Ratios and rates > Practice > Guided practice (page 10)**



You have a photograph of a giraffe that is 5 inches wide. The height of the giraffe in the photo is 2 inches. The actual distance between the two trees is 25 feet.

Use this information to write an equation that finds the actual height in feet of the giraffe.

A · B = C

Tiles:

Tile1 25

Tile2 18

Tile3 $\frac{2}{5}$

Tile4 5

Tile5 2

Tile6 10

Tile7 12

Tile8 $\frac{5}{2}$

topic 2 more practice
Apr 21, 8:00am - Apr 24, 2020, 4:00pm
Given by Pat Ours for Mathematics 7
Complete pages 1-17

2. Ratios and rates
Practice > More practice 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

FIB 2. Ratios and rates > Practice > More practice (page 1)

Anna is helping to make tacos for a school fundraiser. She needs to buy tortillas. Happy Grocery sells small packs of 20 tortillas for $4.40 and large packs of 45 tortillas for $8.55. Anna has been given $48 to spend on tortillas. Fill in the blanks to complete the statements.

The unit price for the small pack is $ _____A_____ per tortilla.
The unit price for the large pack is $ _____B_____ per tortilla.

FIB 2. Ratios and rates > Practice > More practice (page 2)

Anna is helping to make tacos for a school fundraiser. She needs to buy tortillas. Happy Grocery sells small packs of 20 tortillas for $4.40 and large packs of 45 tortillas for $8.55. Anna has been given $48 to spend on tortillas. Anna wants to buy the largest number of tortillas she can. How many small packs and how many large packs of tortillas should she buy?

Anna should buy _____A_____ small pack(s) and _____B_____ large pack(s).

MCSA 2. Ratios and rates > Practice > More practice (page 3)

Shiny Racquets Sports Shop sells tennis balls in various packaging options.

Single can (3 balls)	$2.34
Bag (10 balls)	$6.80
Box (45 balls)	$33.75

Which packaging option has the lowest unit rate (cost per tennis ball)?

A. A single can of 3 balls

B. A bag of 10 balls

C. A box of 45 balls

DND 2. Ratios and rates > Practice > More practice (page 4)

Lisa and her family eat grapefruit every morning for breakfast. The local grocery store offers various options for purchasing grapefruit.

Option 1: A small bag of 6 grapefruit for $1
Option 2: A sale for a case of 12 grapefruit for $1.75
Option 3: A coupon for two small bags of 6 grapefruit each for $1.50 total
Option 4: Individual grapefruit for 20 cents each

Order the options from least expensive to most expensive per grapefruit.

Least expensive [A]

[B]

[C]

Most expensive: [D]

Tiles:

Tile1 Option 1
Tile2 Option 2
Tile3 Option 3
Tile4 Option 4

MCSA 2. Ratios and rates > Practice > More practice (page 5)

Your cousin is driving you to a friend's house at an average speed of 35 mph in heavy traffic. Your friend lives 21 miles away. How long will it take you to get to her house?

A. 35 minutes

B. 60 minutes

C. 36 minutes

D. 0.6 minutes

E. 21 minutes

MCSA 2. Ratios and rates > Practice > More practice (page 6)

The odometer reading on your car is 23,134.8 miles at the start of a trip. When you get to your destination, the odometer reads 23,589.1 and you fill your car with 15.4 gallons of gas. What gas mileage did your car get?

A. 29.5 mpg

B. 15.3 mpg

C. 23.59 mpg

D. 30.8 mpg

E. 45.43 mpg

DND 2. Ratios and rates > Practice > More practice (page 7)

You took a trip to the mountains and traveled 486 miles. It took you 9 hours and 18 gallons of gas to make the trip. The total cost you paid for gas was $59.94. Determine the following rates for the trip.

Your average speed on the trip was [A] miles per hours.

The mileage your car got on the trip was [B] miles per gallon.

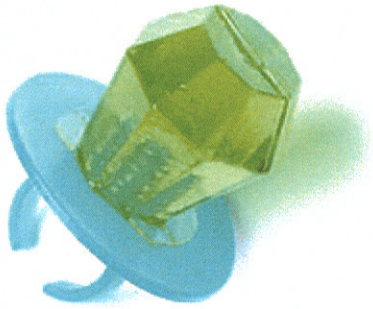
The unit price you paid for gas was [C] per gallon.

Tiles:

Tile1	$3.33	**Tile2**	$2.22
Tile3	$3.00	**Tile4**	33
Tile5	27	**Tile6**	54
Tile7	72	**Tile8**	73
Tile9	65		

MSQ 2. Ratios and rates > Practice > More practice (page 8)

Select the best answer to fill in the blank in the statement.



12 ring pops that cost a total of \$1.68 is slot1 16 ring pops that cost a total of \$2.18

Students choose one for each slot.
Choice Set A : choices for slot 1

A. a better buy than

B. the same buy as

C. a worse buy than

DND 2. Ratios and rates > Practice > More practice (page 9)

To make a certain shade of green paint, mix $\frac{2}{3}$ cup of yellow paint and $\frac{3}{4}$ cup of blue paint. Complete the table showing other quantities of yellow and blue paint that will make the same shade of green.

Number of cups of yellow paint	$\frac{2}{3}$	$\frac{1}{3}$	1	B	C
Number of cups of blue paint	$\frac{3}{4}$	$\frac{3}{8}$	A	$\frac{1}{4}$	1

Tiles:

Tile1 $\frac{2}{9}$

Tile2 $\frac{8}{9}$

Tile3 $1\frac{1}{8}$

Tile4 $1\frac{1}{4}$

Tile5 2

FIB 2. Ratios and rates > Practice > More practice (page 10)

To make a certain shade of green paint, mix $\frac{2}{3}$ cup of yellow paint and $\frac{3}{4}$ cup of blue paint.

To make 17 cups of green paint using this mixture, you will need _____A_____ cups of yellow paint and _____B_____ cups of blue paint.

FIB 2. Ratios and rates > Practice > More practice (page 11)

Two classes are having pizza parties. Ms. Rodriguez's class decides to order enough so that every 3 students will have 2 pizzas. Mr. Becker's class decides to order enough so that every 5 students will have 3 pizzas. Complete the following statements. You can enter whole numbers, decimals rounded to the hundredths place, or simplified fractions.

Each student in Ms. Rodriquez's class will get _____A_____ of a whole pizza. Each student in Mr. Becker's class will get _____B_____ of a whole pizza.

DND 2. Ratios and rates > Practice > More practice (page 12)

Two classes are having pizza parties. Ms. Rodriguez's class decides to order enough so that every 3 students will have 2 pizzas. Mr. Becker's class decides to order enough so that every 5 students will have 3 pizzas. Ms. Rodriguez's class has 27 students and Mr. Becker's class has 25 students. Complete the following statements using the answer choices provided.

[A] will order [B] pizzas and [C] will order 15 pizzas. So, [D] pizzas will be ordered by the two classes.

Tiles:

Tile1	Ms. Rodriquez	**Tile2**	Mr. Becker
Tile3	5	**Tile4**	9
Tile5	15	**Tile6**	18
Tile7	33	**Tile8**	14

DND 2. Ratios and rates > Practice > More practice (page 13)

You have a recipe for crepes. The recipe makes 8 crepes. You need 100 crepes for a school event. Increase the recipe proportionally to make 100 crepes.

Makes 8 crepes	Ingredients	Makes 100 crepes
1 cup(s)	Flour	[A] cup(s)
2	Eggs	[B]
$\frac{1}{2}$ cup(s)	Milk	[C] cup(s)
$\frac{1}{3}$ cup(s)	Water	[D] cup(s)
$\frac{1}{4}$ teaspoon(s)	Salt	[E] teaspoon(s)

Tiles:

Tile1	$12\frac{1}{2}$	**Tile2**	25
Tile3	$6\frac{1}{4}$	**Tile4**	$4\frac{1}{6}$
Tile5	$3\frac{1}{8}$	**Tile6**	24
Tile7	4	**Tile8**	$6\frac{1}{2}$

FIB 2. Ratios and rates > Practice > More practice (page 14)

Concrete is often used to surface roads. Concrete is mostly a mixture of water, rocks or aggregate, and a powdery substance of calcined lime (also called cement).

To create a strong, durable concrete, the proportion of the ingredients is important. A mixture that does not have enough cement paste will be difficult to distribute and will produce rough surfaces. A mixture with too much cement paste will result in a smooth surface, but resulting concrete can easily crack.

The table shows a concrete mixture used to pave 50 yards of street. Fill in the amount of each ingredient needed to pave 300 yards of street.

Paves 50 yards	Ingredients	Paves 300 yards
20 gallons	Water	A gallons
70 gallons	Aggregate (rocks)	B gallons
10 gallons	Cement	C gallons

FIB 2. Ratios and rates > Practice > More practice (page 15)

The nutritional facts label on a sports drink bottle states that 1 serving is 8 fluid ounces and has 14 grams of sugar. There are 4 servings per container.

Suppose a person drinks $1\frac{1}{2}$ bottles of the sports drink. How many grams of sugar has the person consumed?

The person has consumed A grams of sugar.

MCSA 2. Ratios and rates > Practice > More practice (page 16)

The nutrition facts for packaged meatballs are shown.

Nutrition Facts
Serving Size 3 meatballs (84g)
Servings Per Container: about 11

Amount Per Serving	
Calories 260 Calories from Fat 180	
	% Daily Value*
Total Fat 19g	**29%**
Saturated Fat 8g	**40%**
Trans Fat 0g	
Cholesterol 30g	**10%**
Sodium 500g	**24%**
Total Carbohydrate 0g	**2%**
Dietary Fiber 0g	**0%**
Sugars < 1g	
Protein 12g	

% Daily Values are based on a 2,000 calorie diet.

Gunnar ate 4 meatballs. How many grams of fat did he consume?

A. About 25.333 grams

B. About 14.25 grams

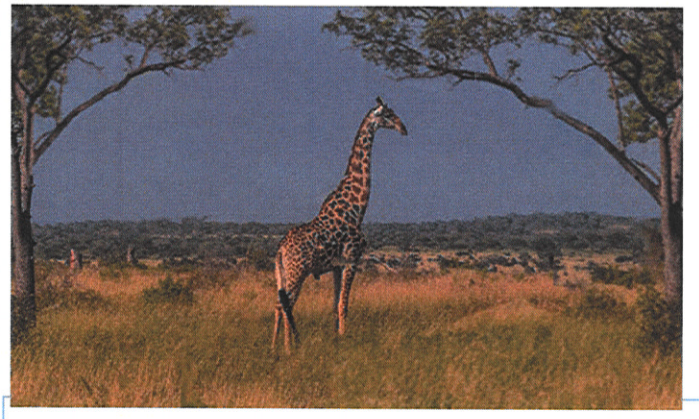
C. About 23.75 grams

D. About 28.5 grams

DND 2. Ratios and rates > Practice > More practice (page 17)

You have a photograph of a giraffe that is 5 inches wide. The height of the giraffe in the photo is 2 inches. The actual height of the giraffe is 8 feet.

Use this information to write an equation that finds the actual distance in feet between the trees.



[A] · [B] = [C]

Tiles:

Tile1 20

Tile2 18

Tile3 $\frac{2}{5}$

Tile4 4

Tile5 5

Tile6 $\frac{5}{2}$

Tile7 10

Tile8 $\frac{1}{2}$

Tile9 8

topic 2 test
Apr 21, 8:00am - Apr 24, 2020, 4:00pm
Given by Pat Ours for Mathematics 7
Complete

2. Ratios and rates

Assessment > Constructed response 1

Constructed **2. Ratios and rates > Assessment > Constructed response (page 1)**

Alex goes to the store to buy his favorite sport drink. He sees a price list for different packaging options.

Sport Drinks
6-pack: $7.20
12-pack: $14.28
Case (24): $28.32

a. Determine the unit price of a sport drink for the 6-pack, 12-pack, and the case.

b. Alex wants to buy 24 drinks. He could buy 6-packs, 12-packs, or a single case. What is the best way for him to buy the 24 drinks to get the best price? Explain how much he would spend for each option and how much he would save.

c. Alex's friend Sara is having a party. She wants to buy 102 bottles of the sport drink. Which is the best way to make the purchase? Explain your reasoning.

d. When Sara gets to the store, she sees she only brought $107. How many drinks can she buy? Which packages should she choose to get as many drinks as she can with the money she has? Explain your answer.