1

Here is a square from a multiplication table. × 5 6 2 10 12 3 15 18

a. Write two true observations about patterns in the square.

b. Make up a similar square using different numbers.

c. Write three true observations about your squares.

1	Multiplicative Comparison Name
	Try This
	My cat weighs 3 pounds. My dog weighs 5 times as much as my cat. How much does my dog weigh?
	Use Cuisenaire Rods to model the problem.
	Draw your model.
	Write an equation to show the answer.
	Write the answer.
	Cat: It green
	Dog: It green It green It green It green
	orange wwwww
	Equation: $5 \times 3 = 15$ My dog weighs 15 pounds.
1	 Jackson ran 4 laps at the track on Monday. On Wednesday, he ran 3 times as many laps. How many laps did he run on Wednesday?

Monday:

esson

Wednesday:

Equation:			Wednesday.
	Jackson ran	lans on v	vegnesdav
			reancoady.

2. This month, Debbie saved two times as much money as she saved last month. Last month she saved \$8. How much did she save this month?

Last month:	
-------------	--

This month:

Equation: _____

3. This week Andrea ate 4 times as many apples as she ate last week. Last week she ate 2 apples. How many apples did she eat this week?

Last week:

Multiplicative Comparison

esso

This week:

Equation: _____

Andrea ate _____ apples this week.

4. A ribbon is 6 centimeters long. A piece of yarn is 3 times as long. How long is the piece of yarn?

Ribbon:

Yarn:

Equation: _____

The piece of yarn is _____ centimeters long.

Solve the problem. Write an equation and the answer.

5. Sheldon is 7 years old. His father is 6 times as old as he is. How old is his father?

Equation: _____

Sheldon's father is _____ years old.

Name _

6. Raj has 5 times as many baseball cards as Joey. If Joey has 8 cards, how many does Raj have?

Equation: _____

Raj has	baseball	cards.
---------	----------	--------

Multiplicative Comparison

esso,

7. Lena has 9 nickels. Mari has 7 times as many. How many nickels does Mari have?

Equation: _____

Mari has _____ nickels.

Use Cuisenaire Rods to build the model. Use the model to complete the problem.

1. Amy has 2 cats. Her friend has 3 times as many cats. How many cats does Amy's friend have?



Bonita has two times as many pets as Tom. If Tom has 8 pets, how 2. many pets does Bonita have?

Tom:	brown		
Bonita:	brown	brown	
	orange	w w w w w w	
Equation:		Bonita has	_ pets.

Use Cuisenaire Rods to model the problem. Draw your model. Use the model to complete the problem.

3. Ann is 5 years old. Her brother is 3 times as old. How old is Ann's brother? Ann's age:

Brother's age:

Equation: _____ Ann's brother is _____ years old.

 Darden picked 3 apples. Jack picked 7 times as many apples. How many apples did Jack pick?
 Darden:

Jack:

Equation: _____

Jack picked _____ apples.

Write an equation that tells the answer to the problem.

5. Over the summer, Nelly read 9 books. Sam read 4 times as many books. How many books did Sam read?

Equation: _____

6. Brandon's tomato plant is 4 feet tall. His corn plant is two times as tall as his tomato plant. How tall is his corn plant?

Equation: _____

7. Luke has lived in Suntown for 6 years. His mother has lived in Suntown for 5 times as many years. How many years has Luke's mother lived in Suntown?

Equation: _____

- **a.** A bus holds 20 passengers. How many buses are needed for the group of 24 children, 3 parents, and 2 teachers going on a field trip?
- **b.** A van holds 12 passengers. How many vans are needed for 30 schoolchildren?



Name _____

Try This

A tree is 24 feet tall. It is 6 times as tall as Penny. How tall is Penny?

- Build a model using Cuisenaire Rods.
- Draw your model.
- Give the answer and write an equation.

Think: The tree is 24 feet tall.

Tree:	orange			orange		wwww
	purple	purple	purple	purple	purple	purple
Penny:	purple	Penny is	4 feet tall.	s many as 4. , or 24 ÷ 6 ÷		

1. There are 20 monkeys in a zoo. There are 4 times as many monkeys as tigers. How many tigers are there?

Monkeys:

Tigers:

There are _____ tigers. Equation: _____

2. A single rose costs \$2 and a bunch of roses costs \$12. How many times as much as a single rose does a bunch of roses cost?

Single rose:

Bunch of roses:

A bunch of roses costs _____ times as much as a single rose.

Equation: _____



3. A factory has 3 times as many workers as a grocery store. The grocery store has 7 workers. How many workers does the factory have?

Grocery store:

Factory:

The factory has _____ workers. Equation: _____

4. A large pizza costs \$24, which is 3 times as much as a personal pizza. How much does a personal pizza cost?

Large pizza:

Personal pizza:

A personal pizza costs \$_____.

Equation: _____

5. A piece of string is 9 centimeters long. A piece of wood is 18 centimeters long. How many times as long is the piece of wood compared with the piece of string?

String:

Wood:

The piece of wood is _____ times as long as the piece of string.

Equation: ______



6. Paolo has 6 coins in his coin collection. Roberta has 3 times as many coins as Paolo. How many coins does Roberta have?

Paolo:

Roberta:

Roberta has _____18 coins.

Equation: _____

Write an equation and answer the question.

7. You read 5 times as long today as you read yesterday. If you read for 50 minutes today, how long did you read yesterday?

Equation: _____

Answer: _____

8. Becki saved \$32 this month. Last month she saved \$8.

This month Becki saved _____ times as much as she did last month.

Equation:

Answer: _____



Use Cuisenaire Rods to build the model. Use the model to solve the problem. Write an equation.

1. A rubber band was 4 centimeters long. Then it was stretched to 12 centimeters. How many times as long is the rubber band when it is stretched as it was before it was stretched?

Before stretched:

Problems

Multiplicative Comparison

purple

After stretched:

C	ww
purple	purple

The rubber band is _____ times as long as it was.

Equation: 12 = ____ × 4, or 12 ÷ 4 = ____

2. Juan picked 20 apples. He picked 5 times as many as Gus. How many apples did Gus pick?

Juan:	C	orange			orange	
	purple	purple	pur	ple	purple	purple
Gus:	purple					

Gus picked _____ apples.

Equation: 20 = 5 × ____, or 20 ÷ 5 = ____

Build a model for the problem. Draw your model for each part. Solve the problem, and write an equation.



3. A pack of pencils costs 7 times as much as one pencil. One pencil costs 3 cents. How much does a pack of pencils cost?One pencil:

Pack of pencils:

A pack of pencils costs _____ cents.

Equation: _____

4. The giraffe at the zoo is 16 feet tall, which is 4 times as tall as the chimpanzee. How tall is the chimpanzee?

Giraffe:

Chimpanzee:

The chimpanzee is _____ feet tall.

Equation: _____

Write an equation to solve the problem.

5. Andre and Zach went fishing. Zach caught 28 fish. He caught 7 times as many fish as Andre. How many fish did Andre catch?

Equation: _____

Andre caught _____ fish.

6. Shelly and Vicky collect stickers. Vicky has 5 times as many stickers as Shelly. If Vicky has 40 stickers, how many stickers does Shelly have?

Equation: _____

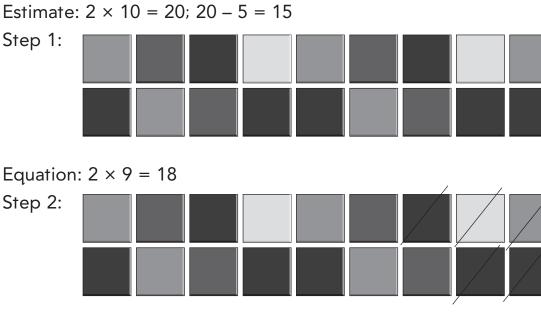
Shelly has _____ stickers.

3

Andy is half as old as his dad.

His dad is 42.

How old will Andy be when his dad is 50?



Equation: 18 - 5 = 13Sal has 13 erasers now.

Tara has 12 fruit cups and 15 pudding cups for the party. She will put 1. equal numbers of cups on each of 3 serving trays. How many will she put on each tray?

Estimate:

Try This

Estimate the answer.



Sal bought 2 boxes of erasers. Each box contained 9 erasers. He gave

5 of the erasers to his sister. How many does he have now?

Use Color Tiles or Base Ten Blocks to model the problem.

• For each step, draw your model and write an equation.

ETA hand2mind[®]

0000



esso,

2. A pizza shop made 4 pepperoni pizzas, 11 cheese pizzas, and 6 veggie pizzas. If the 3 cooks each made the same number of pizzas, how many pizzas did each cook make?

Estimate: _____

Answer: _____

3. Mrs. Hitte gave her 3 children \$30 to share equally. Her son wants to buy 5 bags of marbles. If each bag costs \$2, does he have enough money?

Estimate: _____

Answer: _____



4. There are 15 students in Mrs. Small's class. There are 17 students in Mrs. Little's class. Both classes are attending a play together. Each table at the play seats 4 children. How many tables are needed?

Estimate: _____

Answer: _____

For each problem, estimate the answer. Write the equations you use to solve the problem, and write the answer.

5. Andrew discovered a buried treasure box. He opened it and found that it contained 12 diamonds and 22 rubies. The owner of the box gave Andrew 9 of the gems as a reward for returning it. How many gems did the owner keep?

Estimate: _____

Equations: _____

Answer: _____

6. Jenna has 13 hardcover books and 29 paperback books. She is packing them in boxes. Each box can hold 7 books. How many boxes will she need?

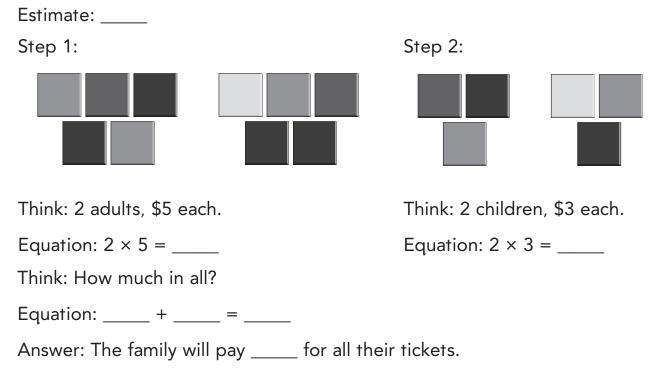
Estimate: _____

Equations: _____

Answer:

Estimate the answer to the problem. Use Color Tiles to build the models, and use the models to complete the equations and the answer.

1. A family is going to the museum. The family has 2 adults and 2 children. Each adult's ticket costs \$5, and each child's ticket costs \$3. How much will the family pay for all their tickets?



Estimate the answer, then use Color Tiles or Base Ten Blocks to build models for the problem. Sketch your models and use them to write equations. Give the answer.

2. Larry's friend gave him \$20. He used the money to buy 5 packs of baseball cards for \$3 each. How much money does Larry have left?

Estimate: _____



3. Eva's desk drawer contains pencils and pens. There are 4 pencils. There are 6 more pens than pencils. How many pencils and pens are there in all?

Estimate: _____

Answer:

4. There are 14 students in Mrs. Smart's class. There are 16 students in Mr. Lee's class. The classes are going to the library together for reading time. Each table at the library seats 5 children. How many tables are needed?

Estimate: _____

Answer:



For each problem, estimate the answer. Write the equations you use to solve the problem, and write the answer.

5. There are 5 football games each month. The season is 4 months long. If the team won 11 games, how many did it lose?

Estimate: _____

Equations: _____

Answer: _____

6. On Monday, Mickey bought 2 packs of animal cards. On Tuesday, he bought 4 packs. Each pack has 9 cards. He gave 19 cards to his friend. How many cards does Mickey have left?

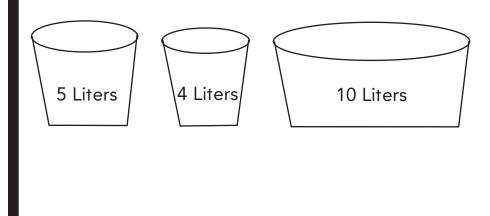
Estimate: _____

Equations: _____

Answer: _____

4

One player needs to have exactly two liters of liquid. Can you figure out how to get 2 liters using the following containers? No other containers are available.



Name _

Try This

2SSO

Emily had 6 flowers. Then she bought 9 more flowers from a florist. She will give the same number of flowers to each of her 2 teachers. How many flowers can she give each teacher?

- Choose a tool and build a model.
- For each step in the problem, draw your model and write an equation.
- Give the answer.

Step 1:	Step 2:
Equation: $6 + 9 = 15$	Equation: 15 ÷ 2 = 7 R1 Answer: 7 flowers

1. Jackie baked 3 trays of 10 muffins. After they cooled, she divided them equally into 4 bags. How many muffins did she put in each bag?

Answer: _____ muffins



2. A teacher has 5 bags of marbles. Two of the bags have 4 marbles in them. The other 3 bags have 5 in them. How many marbles are there in all?

Answer: _____ marbles

3. Mr. Little divided \$27 equally among his 3 children. His daughter, Lisa, used her money to buy 3 gifts. If each gift cost the same amount. What was the price of each gift?

Answer: _____

4. You earn \$4 for each hour of babysitting and \$3 for each hour of weeding the garden. Last week you did 4 hours of babysitting and 3 hours of weeding. How much more did you earn babysitting than you earned weeding?



Solve the problem. Write equations and give the answer.

5. Michael had 22 books and got 9 more for his birthday. If each of his cubbies can hold 6 books, how many cubbies does Michael need for his books? Explain.

6. DVDs are on sale for \$4. Books are on sale for \$3. You want to buy 5 DVDs and 4 books. If you have \$35, do you have enough money? Explain.

Use Centimeter Cubes to build the model. Use the model to complete the problem.

1. Jenny wants to buy 3 books that cost \$5 each. She gets paid \$4 to walk a dog. If she walks 4 dogs, will she earn enough to buy the books?

Step 1:	Step 2:
Equation: $3 \times 5 =$	Equation: $4 \times 4 =$
Answer:	·

2. Tabitha bought 3 boxes of fish food and 2 packets of cat food. Each box of fish food contains 4 pouches, and each packet of cat food contains 3 pouches. How many more pouches of fish food than cat food did Tabitha buy?

Step 1:	Step 2:
Equation: $3 \times 4 = $	Equation: $2 \times 3 =$
Step 3:	
Equation: 12 – 6 = Answer:	



Use Centimeter Cubes to model the problem. Draw your models, write equations, and give the answer.

Raul has 23 tins and a case that has 9 shelves. Six of the shelves 3. can hold only 2 tins. Three shelves can hold only 3 tins. Can he fit all the tins on the 9 shelves? Explain.

Answer:

Cameron bought 6 bottles of water to add to the 16 bottles he already 4. had. Now he wants to divide the water equally between 4 friends. How many bottles can each friend get?

0000

Answer: _____ bottles



Write equations for the problem and give the answer.

5. Cecile bought 2 pairs of flip-flops that cost \$8 each and a pair of tennis shoes that cost \$22. How much did she pay for her flip-flops and tennis shoes together?

Answer: _____

Multistep Problems II

6. Maria picked 9 red flowers and 8 yellow flowers from her garden. If each vase can hold only 5 flowers, how many vases does she need?

Answer: at least _____ vases