Comparing Products

Home Link 9-1

NAME DATE TIME

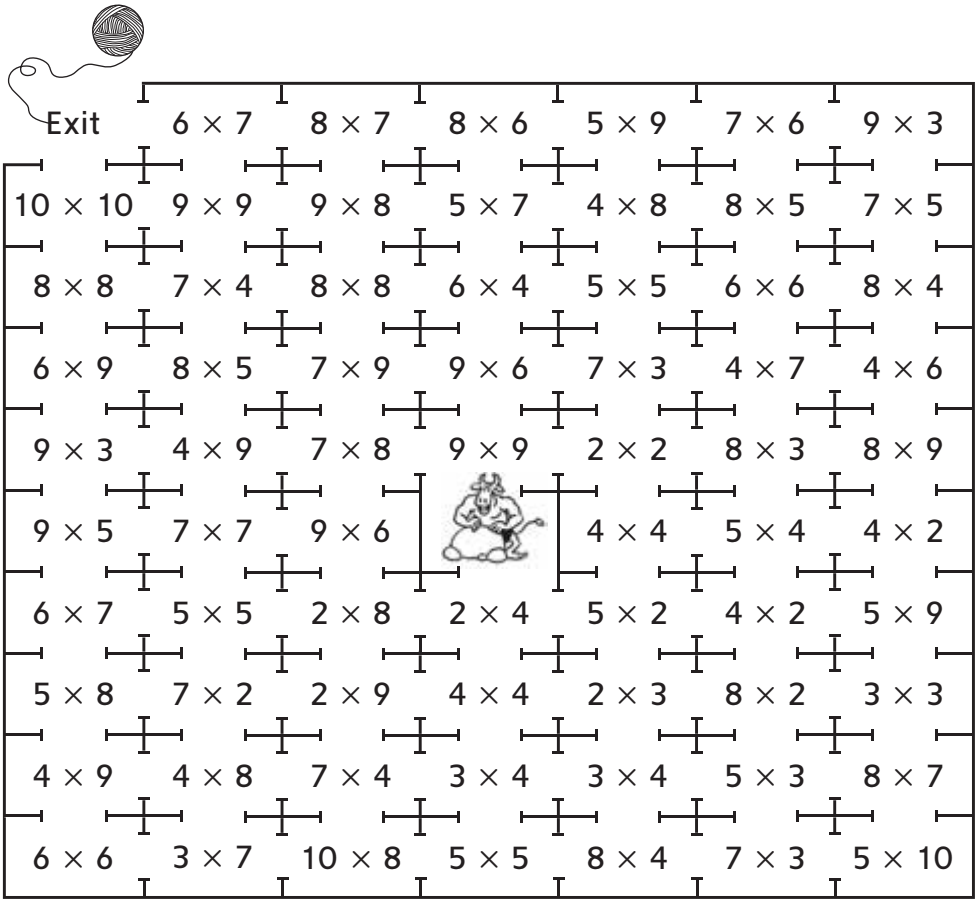
Family Note Today your child learned a game that involves finding a multiplication product greater than the one just played. The activity below provides practice with this skill. Have your child start at the picture of the Minotaur and use a pencil so that he or she can erase wrong turns.

Please return this Home Link to school tomorrow.

SRB 65-66

According to Greek mythology, there was a monster called the Minotaur that was half bull and half human. The king had a special mazelike dwelling built, from which the Minotaur could not escape. The dwelling, called a **labyrinth** (la buh rinth), had many rooms and passageways that formed a puzzle. No one who went in could find their way out without help. One day, a Greek hero named Theseus decided to slay the monster. To find his way out of the labyrinth, Theseus's friend Ariadne gave him a very, very long ball of string to unwind as he walked through the passageways. After Theseus slew the Minotaur, he followed the string to escape.

Pretend you are Theseus. To find your way out of the maze, each room you enter must have a product greater than the product in the room you are leaving. Start at the Minotaur's chambers in the middle and draw a path to the exit.



Multiplication and Division Number Stories

Home Link 9-2

NAME DATE TIME

Family Note Today your child solved number stories involving multiples of 10. The class examined a map displaying the masses of adult North American birds to make sense of the stories and used multiplication/division diagrams to organize information. For the problems below, encourage your child to use a known basic fact to help solve the number models with extended facts involving multiples of 10.

Please return this Home Link to school tomorrow.

SRB 61-64

Write a number model. Then solve each number story. You may draw a picture or use the multiplication/division diagram.

(1) One American flamingo has a mass of about 2 kg. What is the mass of 40 American flamingos that each have a mass of about 2 kg?

number of flamingos	mass of 1 flamingo in kg	total mass in kg

_____
(number model with ?)

40 flamingos have a mass of about _____ kg.

(2) There are 9 bluebirds that each have about the same mass. Together they have a mass of about 270 g. What is the mass of one bluebird?

number of bluebirds	mass of 1 bluebird in g	total mass in g

_____
(number model with ?)

One bluebird has a mass of about _____ g.

(3) Explain to someone at home how you can use a basic fact to help you solve Problem 2.

Using Mental Math to Multiply

Home Link 9-3

NAME DATE TIME

Family Note Today your child practiced applying efficient fact strategies to solve multiplication problems with larger factors. Your child broke apart factors into easier numbers to mentally solve problems involving masses of North American birds.

Please return this Home Link to school tomorrow.

Solve each problem in your head. Use number models and words to show your thinking.

SRB 30-31

1. The mass of one California condor is 9 kilograms. What is the mass of twelve 9-kilogram California condors?

   My thinking:

   Answer: _____ (unit)

2. The mass of one mountain bluebird is 25 grams. What is the mass of seven 25-gram bluebirds?

   My thinking:

   Answer: _____ (unit)

3. Explain to someone at home how you can use the break-apart and doubling strategies to solve problems with larger factors.

Measuring the Lengths of Activities

Home Link 9-4

NAME DATE TIME

Family Note Today your child practiced measuring time intervals by planning a schedule for a field trip. After completing Problem 1, have your child explain how he or she figured out the length of each activity.

Please return this Home Link to school tomorrow.

SRB 18-19, 187-188

(1) Isabella wants to know how long each camp activity lasts. Use the table below to find the length of each activity. You may use open number lines, clocks, or another strategy.

Camp Activities		
Activity	**Schedule**	**Length, in minutes**
Art	8:30 A.M.–9:20 A.M.	
Swimming	9:20 A.M.–10:20 A.M.	
Snack	10:35 A.M.–10:55 A.M.	
Nature walk	10:55 A.M.–12:10 P.M.	

Practice

Solve.

(2) $4 \times 60 =$ _____

(3) $70 \times 3 =$ _____

(4) _____ $= 60 \times 8$

(5) _____ $= 80 \times 9$

Multidigit Multiplication

Home Link 9-5

NAME DATE TIME

Family Note Today your child multiplied 2-digit numbers by 1-digit numbers using area models. Children drew a rectangle to represent the multiplication problem and then broke apart the larger factor into smaller, easier-to-multiply numbers.

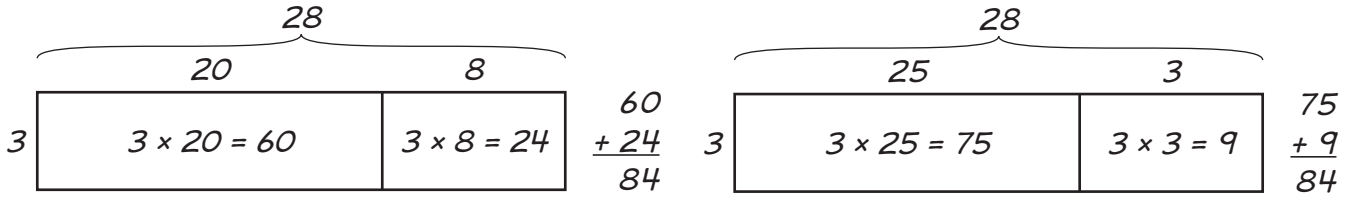
Please return this Home Link to school tomorrow.

SRB 59-60

Use the break-apart strategy to solve the multiplication problems. Draw and partition a rectangle. Then record number sentences to show how you broke apart the factor.

Example:

$3 \times 28 = 84$



Two ways to break apart 28 to help solve 3×28.

(1) $5 \times 42 =$ _____

(2) $6 \times 54 =$ _____

(3) Explain to someone at home how you broke apart the larger factors.

Using Tools Effectively

Home Link 9-6

NAME DATE TIME

Family Note Today your child pretended to use a calculator with a broken division key to solve a number story. In the problem below, your child is asked to solve a similar problem with a broken calculator. Ask your child to explain why both strategies work and how they are different.

Please return this Home Link to school tomorrow.

Ask someone at home for a calculator you can use to solve this problem. SRB 291-296

A third-grade class is planning to buy eggs for the school's pancake breakfast. They need 180 eggs for the breakfast. The teacher reminded the class that eggs come in cartons of 12 and asked them to figure out how many cartons they need. Lucy wants to use her calculator to solve the problem, but the [+] and [÷] keys are both broken. Help Lucy find a way to use her broken calculator to solve the problem.

1. Show or tell how to use Lucy's broken calculator to find the number of cartons of eggs the class needs to buy.

The class needs to buy _____ cartons of eggs.

2. Show or tell another way for Lucy to use her broken calculator to solve the problem.

Calculating Elapsed Time

Home Link 9-7

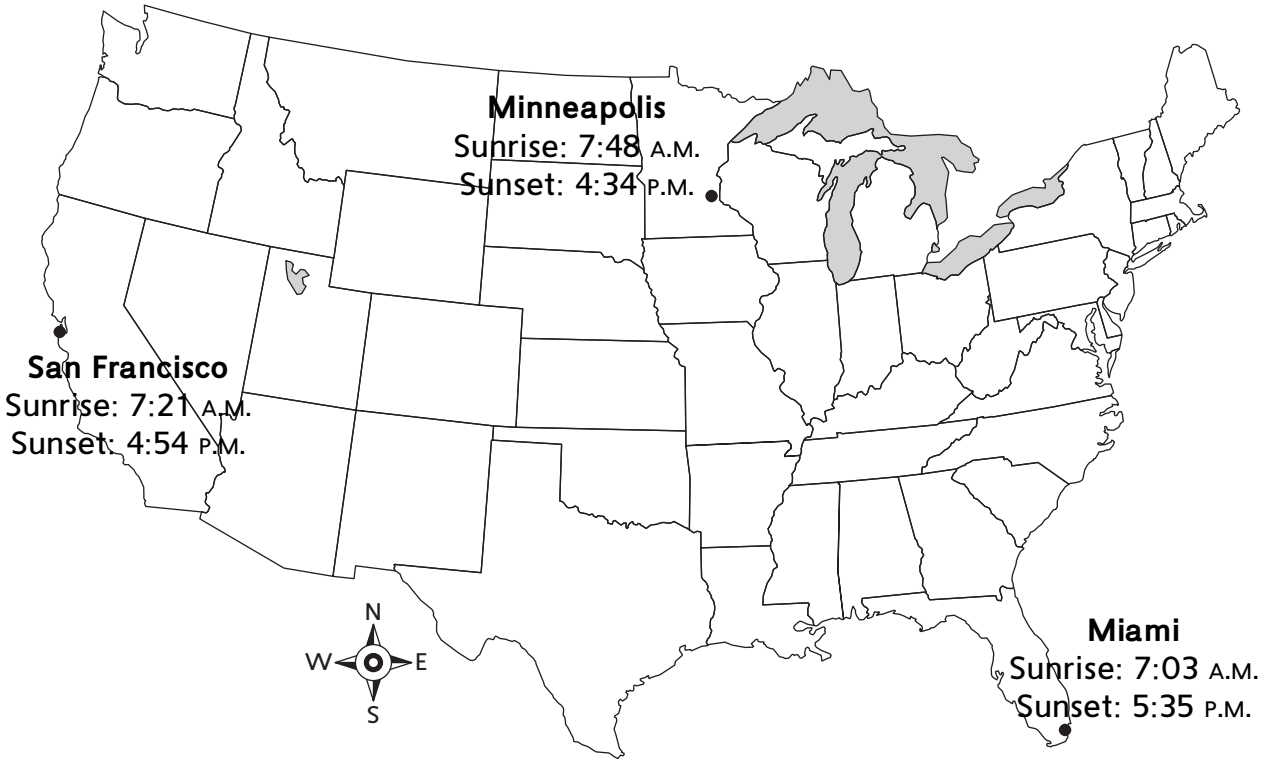
NAME DATE TIME

Family Note Throughout the year, your child has practiced calculating the length of day (hours of sunlight) using sunrise and sunset data. Children have used clocks and open number lines to figure out the total minutes and hours that pass from a start time to an end time. Today children analyzed graphs showing the length-of-day data for our location and for other locations around the world.

Please return this Home Link to school tomorrow.

SRB 18-19, 187-188

(1) On the map below, look at the sunrise and sunset times for December 21, 2016. On the back of this page, calculate the length of day for all three cities. Record the times next to each city on the map.



(2) Which city has the *most* hours of sunlight? _____

(3) Which city has the *least* hours of sunlight? _____