

# Unit 4: Home Practice

## Part 1 Triangle Flash Cards: 2s, 3s, and 9s

Study for the quiz on the multiplication facts for the twos, threes, and nines. Take home your Triangle Flash Cards: 2s, 3s, and 9s and the list of facts you need to study.

To use the flash cards, ask a family member to choose one flash card at a time. He or she should cover the corner containing the highest number. This number will be the answer to a multiplication problem. Multiply the two uncovered numbers.

Study the math facts in small groups. Choose eight to ten facts to study each night. Your teacher will tell you when the quiz on the twos, threes, and nines will be.

## Part 2 Factors and Primes

- Is 9 a factor of 72? Explain why or why not.
- Tell which of the following are prime numbers. If a number is prime, tell how you know. If it is not prime, write it as the product of prime factors.  
A. 13                      B. 24                      C. 15                      D. 29
- Rewrite the following factorizations using exponents.  
A.  $240 = 2 \times 2 \times 2 \times 3 \times 2 \times 5$   
B.  $800 = 2 \times 2 \times 2 \times 2 \times 5 \times 2 \times 5$   
C.  $2100 = 2 \times 5 \times 3 \times 7 \times 2 \times 5$
- Write each of the following products without exponents. Then multiply.  
A.  $4^2 \times 3^2$               B.  $3^3 \times 5$               C.  $4^3 \times 2^2$               D.  $2^2 \times 3^3$

**Part 3** People and Prices

1. Some of the workers at the TIMS Candy Company went to the fruit stand for lunch. Maggie bought a plum for 29¢ and an apple for 39¢. If she pays with \$1.00, how much change should she receive?
  
2. A regular comic book at the used book sale costs 5¢. Special edition comic books cost 10¢ each. How much does Shannon need to pay if she wants to purchase 3 regular comic books and 4 special edition comic books?
  
3. Roberto's father is a salesman for the TIMS Candy Company. At the end of the year, Roberto's father earned a bonus of \$565. This was \$180 more than last year's bonus.
  - A. How much did Roberto's father receive as a bonus last year?
  
  - B. How can you be sure your answer is reasonable?
  
4. Ana went to the movies. She had only dimes with her. If the movie costs \$1.75, how many dimes does she need to give the cashier? Explain.
  
5. Jessie went with her family to a two-day fall festival. On the first day, 4367 adults attended the fest and 4587 children attended.
  - A. The newspaper reported the actual attendance. Calculate the actual attendance for the first day.
  
  - B. About how many more people need to attend on the second day to reach a total of 10,000 people at the festival? Use a number line to show how you got your answer.

**Part 4** Complete the Fact Families

**A.**  $9 \times 3 = \underline{\quad}$

$\underline{\quad} \times 9 = \underline{\quad}$

$\underline{\quad} \div 3 = 9$

$\underline{\quad} \div \underline{\quad} = \underline{\quad}$

**B.**  $2 \times \underline{\quad} = 10$

$\underline{\quad} \times \underline{\quad} = 10$

$10 \div 2 = \underline{\quad}$

$10 \div \underline{\quad} = \underline{\quad}$

**C.**  $3 \times 8 = \underline{\quad}$

$\underline{\quad} \times 3 = \underline{\quad}$

$\underline{\quad} \div \underline{\quad} = 8$

$\underline{\quad} \div \underline{\quad} = 3$

**D.**  $9 \times \underline{\quad} = 54$

$\underline{\quad} \times \underline{\quad} = 54$

$54 \div 6 = \underline{\quad}$

$54 \div \underline{\quad} = \underline{\quad}$

**E.**  $\underline{\quad} \times 3 = 6$

$\underline{\quad} \times \underline{\quad} = 6$

$6 \div \underline{\quad} = \underline{\quad}$

$\underline{\quad} \div \underline{\quad} = 3$

**F.**  $2 \times \underline{\quad} = 14$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$14 \div 2 = \underline{\quad}$

$\underline{\quad} \div \underline{\quad} = \underline{\quad}$

**G.**  $\underline{\quad} \times 6 = 12$

$6 \times \underline{\quad} = 12$

$12 \div \underline{\quad} = \underline{\quad}$

$12 \div \underline{\quad} = \underline{\quad}$

**H.**  $36 \div \underline{\quad} = 4$

$36 \div \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times 9 = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = 36$

**I.**  $9 \times 9 = \underline{\quad}$

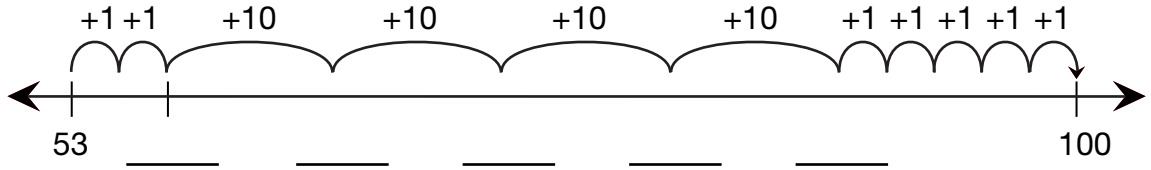
$\underline{\quad} \div \underline{\quad} = 9$

**J.**  $3 \times 3 = \underline{\quad}$

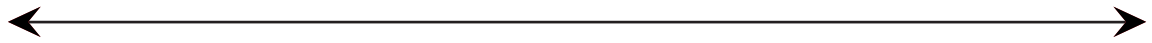
$\underline{\quad} \div \underline{\quad} = 3$

**Part 5** Number Lines

1.

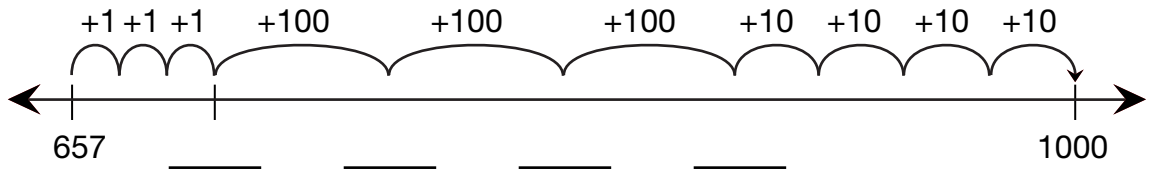


- A. Fill in the blanks to show where the hopper lands.
- B. How far is it from 53 to 100? \_\_\_\_\_
- C. Show another way for a base-ten hopper to start at 53 and stop at 100.



- D. Write a number sentence to show how the first hopper moved.

2.



- A. Fill in the blanks to show where the hopper lands.
- B. How far is it from 657 to 1000? \_\_\_\_\_
- C. Show another way for a base-ten hopper to start at 657 and stop at 1000.



- D. Write a number sentence to show how the first hopper moved.

**Part 6** Arithmetic Review

Use paper and pencil or mental math to solve these problems. Remember to do a quick estimate and then look at your answer to make sure it makes sense.

$$\begin{array}{r} 1. \quad 123 \\ + 537 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 672 \\ - 253 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 303 \\ + 497 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 897 \\ + 481 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 460 \\ - 255 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 461 \\ 791 \\ + 23 \\ \hline \end{array}$$

7. Explain how you can solve Question 3 using mental math.
8. Explain how you can solve Question 4 using base-ten shorthand.
9. Explain your estimation strategy for Question 6.

Home Practice

Part 2. (TG p. 1)

Questions 1–4

1. Yes.  $8 \times 9 = 72$
2. **A.** 13 is prime. Its only factors are 1 and itself.  
**B.** 24 is not prime.  $3 \times 2 \times 2 \times 2 = 24$   
**C.** 15 is not prime.  $3 \times 5 = 15$   
**D.** 29 is prime. Its only factors are 1 and itself.
3. **A.**  $2^4 \times 3 \times 5$   
**B.**  $2^5 \times 5^2$   
**C.**  $2^2 \times 5^2 \times 3 \times 7$
4. **A.**  $4 \times 4 \times 3 \times 3 = 144$   
**B.**  $3 \times 3 \times 3 \times 5 = 135$   
**C.**  $4 \times 4 \times 4 \times 2 \times 2 = 256$   
**D.**  $2 \times 2 \times 3 \times 3 \times 3 = 108$

Part 3. (TG p. 2)

Questions 1–5

1. 32¢
2. 55¢
3. **A.** \$385.00  
**B.** Answers will vary. Students could use convenient numbers such as  $560 - 200 = 360$ . 385 is close to 360 so my answer is reasonable.
4. 18 dimes
5. **A.** 8954 people  
**B.** Estimates will vary. Accept between 1000–2000 people. Possible strategy:  $10,000 - 9000 = 1000$ .

Copyright © Kendall Hunt Publishing Company

Name \_\_\_\_\_ Date \_\_\_\_\_

Unit 4: Home Practice

**Part 1** Triangle Flash Cards: 2s, 3s, and 9s

Study for the quiz on the multiplication facts for the twos, threes, and nines. Take home your Triangle Flash Cards: 2s, 3s, and 9s and the list of facts you need to study.

To use the flash cards, ask a family member to choose one flash card at a time. He or she should cover the corner containing the highest number. This number will be the answer to a multiplication problem. Multiply the two uncovered numbers.

Study the math facts in small groups. Choose eight to ten facts to study each night. Your teacher will tell you when the quiz on the twos, threes, and nines will be.

**Part 2** Factors and Primes

1. Is 9 a factor of 72? Explain why or why not.
2. Tell which of the following are prime numbers. If a number is prime, tell how you know. If it is not prime, write it as the product of prime factors.  
**A.** 13      **B.** 24      **C.** 15      **D.** 29
3. Rewrite the following factorizations using exponents.  
**A.**  $240 = 2 \times 2 \times 2 \times 3 \times 2 \times 5$   
**B.**  $800 = 2 \times 2 \times 2 \times 2 \times 5 \times 2 \times 5$   
**C.**  $2100 = 2 \times 5 \times 3 \times 7 \times 2 \times 5$
4. Write each of the following products without exponents. Then multiply.  
**A.**  $4^3 \times 3^2$       **B.**  $3^3 \times 5$       **C.**  $4^3 \times 2^2$       **D.**  $2^2 \times 3^3$

Copyright © Kendall Hunt Publishing Company

TG • Grade 4 • Unit 4 • Home Practice

Teacher Guide - Page 1

Name \_\_\_\_\_ Date \_\_\_\_\_

**Part 3** People and Prices

1. Some of the workers at the TIMS Candy Company went to the fruit stand for lunch. Maggie bought a plum for 29¢ and an apple for 39¢. If she pays with \$1.00, how much change should she receive?
2. A regular comic book at the used book sale costs 5¢. Special edition comic books cost 10¢ each. How much does Shannon need to pay if she wants to purchase 3 regular comic books and 4 special edition comic books?
3. Roberto's father is a salesman for the TIMS Candy Company. At the end of the year, Roberto's father earned a bonus of \$565. This was \$180 more than last year's bonus.  
**A.** How much did Roberto's father receive as a bonus last year?  
**B.** How can you be sure your answer is reasonable?
4. Ana went to the movies. She had only dimes with her. If the movie costs \$1.75, how many dimes does she need to give the cashier? Explain.
5. Jessie went with her family to a two-day fall festival. On the first day, 4367 adults attended the fest and 4587 children attended.  
**A.** The newspaper reported the actual attendance. Calculate the actual attendance for the first day.  
**B.** About how many more people need to attend on the second day to reach a total of 10,000 people at the festival? Use a number line to show how you got your answer.

Copyright © Kendall Hunt Publishing Company

TG • Grade 4 • Unit 4 • Home Practice 2

Teacher Guide - Page 2

Name \_\_\_\_\_ Date \_\_\_\_\_

**Part 4 Complete the Fact Families**

**A.**  $9 \times 3 = \underline{\quad}$   
 $\underline{\quad} \times 9 = \underline{\quad}$   
 $\underline{\quad} \div 3 = 9$   
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$

**B.**  $2 \times \underline{\quad} = 10$   
 $\underline{\quad} \times \underline{\quad} = 10$   
 $10 \div 2 = \underline{\quad}$   
 $10 \div \underline{\quad} = \underline{\quad}$

**C.**  $3 \times 8 = \underline{\quad}$   
 $\underline{\quad} \times 3 = \underline{\quad}$   
 $\underline{\quad} \div \underline{\quad} = 8$   
 $\underline{\quad} \div \underline{\quad} = 3$

**D.**  $9 \times \underline{\quad} = 54$   
 $\underline{\quad} \times \underline{\quad} = 54$   
 $54 \div 6 = \underline{\quad}$   
 $54 \div \underline{\quad} = \underline{\quad}$

**E.**  $\underline{\quad} \times 3 = 6$   
 $\underline{\quad} \times \underline{\quad} = 6$   
 $6 \div \underline{\quad} = \underline{\quad}$   
 $\underline{\quad} \div \underline{\quad} = 3$

**F.**  $2 \times \underline{\quad} = 14$   
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$   
 $14 \div 2 = \underline{\quad}$   
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$

**G.**  $\underline{\quad} \times 6 = 12$   
 $6 \times \underline{\quad} = 12$   
 $12 \div \underline{\quad} = \underline{\quad}$   
 $12 \div \underline{\quad} = \underline{\quad}$

**H.**  $36 \div \underline{\quad} = 4$   
 $36 \div \underline{\quad} = \underline{\quad}$   
 $\underline{\quad} \times 9 = \underline{\quad}$   
 $\underline{\quad} \times \underline{\quad} = 36$

**I.**  $9 \times 9 = \underline{\quad}$   
 $\underline{\quad} \div \underline{\quad} = 9$

**J.**  $3 \times 3 = \underline{\quad}$   
 $\underline{\quad} \div \underline{\quad} = 3$

Copyright © Kendall Hunt Publishing Company

**3 TG • Grade 4 • Unit 4 • Home Practice**

**Teacher Guide - Page 3**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Part 5 Number Lines**

1.

A. Fill in the blanks to show where the hopper lands.  
 B. How far is it from 53 to 100? \_\_\_\_\_  
 C. Show another way for a base-ten hopper to start at 53 and stop at 100.

\_\_\_\_\_

D. Write a number sentence to show how the first hopper moved.

2.

A. Fill in the blanks to show where the hopper lands.  
 B. How far is it from 657 to 1000? \_\_\_\_\_  
 C. Show another way for a base-ten hopper to start at 657 and stop at 1000.

\_\_\_\_\_

D. Write a number sentence to show how the first hopper moved.

Copyright © Kendall Hunt Publishing Company

**TG • Grade 4 • Unit 4 • Home Practice 4**

**Teacher Guide - Page 4**

**Part 4. (TG p. 3)**

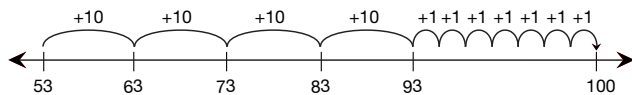
**Questions A–J**

- |  |  |
|--|--|
| <b>A.</b> $9 \times 3 = 27$<br>$3 \times 9 = 27$<br>$27 \div 3 = 9$<br>$27 \div 9 = 3$ | <b>B.</b> $2 \times 5 = 10$<br>$5 \times 2 = 10$<br>$10 \div 2 = 5$<br>$10 \div 5 = 2$ |
| <b>C.</b> $3 \times 8 = 24$<br>$8 \times 3 = 24$<br>$24 \div 3 = 8$<br>$24 \div 8 = 3$ | <b>D.</b> $9 \times 6 = 54$<br>$6 \times 9 = 54$<br>$54 \div 6 = 9$<br>$54 \div 9 = 6$ |
| <b>E.</b> $2 \times 3 = 6$<br>$3 \times 2 = 6$<br>$6 \div 3 = 2$<br>$6 \div 2 = 3$     | <b>F.</b> $2 \times 7 = 14$<br>$7 \times 2 = 14$<br>$14 \div 2 = 7$<br>$14 \div 7 = 2$ |
| <b>G.</b> $2 \times 6 = 12$<br>$6 \times 2 = 12$<br>$12 \div 6 = 2$<br>$12 \div 2 = 6$ | <b>H.</b> $36 \div 4 = 9$<br>$36 \div 9 = 4$<br>$4 \times 9 = 36$<br>$9 \times 4 = 36$ |
| <b>I.</b> $9 \times 9 = 81$<br>$81 \div 9 = 9$   | <b>J.</b> $3 \times 3 = 9$<br>$9 \div 3 = 3$   |

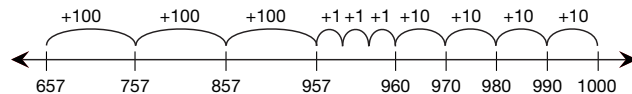
**Part 5. (TG p. 4)**

**Questions 1–2**

1. **A.** 55, 65, 75, 85, 95  
**B.** 47  
**C.** Answers will vary. Possible response:  
**D.**  $53 + 2 + 10 + 10 + 10 + 10 + 5 = 100$
2. **A.** 660, 760, 860, 960



- B.** 343  
**C.** Answers will vary. Possible response:  
**D.**  $657 + 3 + 100 + 100 + 100 + 10 + 10 + 10 + 10 = 1000$

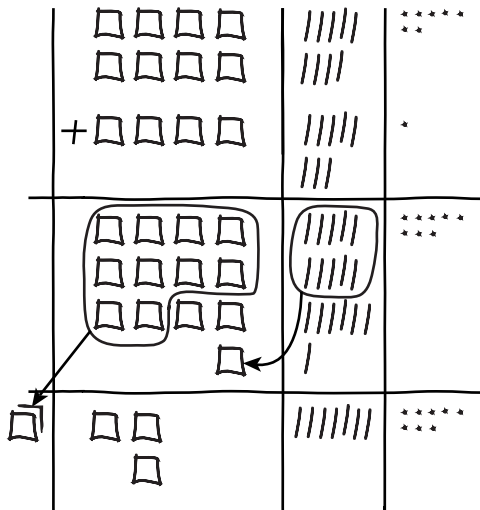


Copyright © Kendall Hunt Publishing Company

Part 6. (TG p. 5)

Questions 1–9

1. 660
2. 419
3. 800
4. 1378
5. 205
6. 1275
7. Strategies will vary. One possible solution that uses mental math: Take 3 away from 303 to make 300. Add it to 497 to make 500.  $300 + 500 = 800$ .
- 8.



	□	—	*
	8	9	7
	4	8	1
	12 <sup>1</sup>	<del>17</del>	8
	13	7	8

9. Strategies will vary. Possible strategy:  $500 + 800 + 25 = 1325$ .

Name \_\_\_\_\_ Date \_\_\_\_\_

**Part 6** Arithmetic Review

Use paper and pencil or mental math to solve these problems. Remember to do a quick estimate and then look at your answer to make sure it makes sense.

1.  $\begin{array}{r} 123 \\ + 537 \\ \hline \end{array}$

2.  $\begin{array}{r} 672 \\ - 253 \\ \hline \end{array}$

3.  $\begin{array}{r} 303 \\ + 497 \\ \hline \end{array}$

4.  $\begin{array}{r} 897 \\ + 481 \\ \hline \end{array}$

5.  $\begin{array}{r} 460 \\ - 255 \\ \hline \end{array}$

6.  $\begin{array}{r} 461 \\ 791 \\ + 23 \\ \hline \end{array}$

7. Explain how you can solve Question 3 using mental math.
8. Explain how you can solve Question 4 using base-ten shorthand.
9. Explain your estimation strategy for Question 6.

Copyright © Kendall Hunt Publishing Company

5 TG • Grade 4 • Unit 4 • Home Practice

Teacher Guide - Page 5