# Third Grade Answer Key Unit 4: More Multiplication & Division

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#### Lesson 1

Examine the equation below. Draw a fact family house and fill it in.

$$36 \div 9 = ?$$

$$36 \div 4 = 9$$

$$9 \times 4 = 36$$

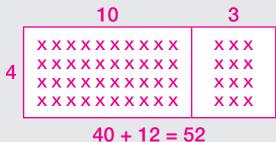
$$4 \times 9 = 36$$

#### Lesson 2

Tyler has 8 pails of bananas. If each pail contains 7 bananas, how many bananas does Tyler have in all? Draw a strip diagram and solve.

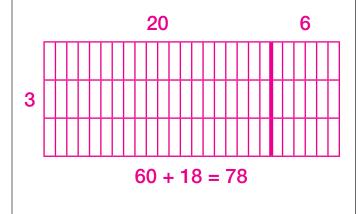
#### Lesson 3

Model and solve the problem  $13 \times 4$  by using partial products (draw an array).



#### Lesson 4

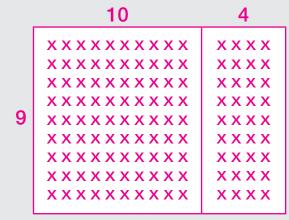
Model and solve the problem  $26 \times 3$  by using partial products (draw an area model).



#### Lesson 5

Model and solve the problem below using partial products. Draw an array and an area model.

$$14 \times 9 = ?$$



$$90 + 36 = 126$$

#### Lesson 6

Solve the problem below.

#### Lesson 7

Solve the problem below.

#### Lesson 8

Darren has 28 baskets of tennis balls. If each basket contains 6 tennis balls, how many tennis balls does Darren have in all? Solve and record your answer below.

Answer: 168 tennis balls

#### Lesson 9

Marty went shopping and bought 5 shirts at \$24 each. How much money did Marty spend in all? Solve and record your answer below.

Answer: \_\_\_ **\$120** 

#### Lesson 10

Brett collected all the soccer balls on the field after practice. He filled 3 buckets with 22 soccer balls each. What is the total number of soccer balls that Brett put away?

Answer: 66 soccer balls

#### Lesson 11

Jarrett buys 40 slices of ham. If he puts 10 slices of ham in each container, how many containers will he need to store the ham?

- **A.** 2
- **B.** 5
- **C.** 4
- **D.** 10

#### Lesson 12

Becky made 20 cupcakes. If she wants to split them equally among herself and 4 friends, how many cupcakes will each person receive?

- **A.** 2
- **B.** 5
- **C.** 4
- **D.** 10

#### Lesson 13

Michael has 40 basketballs to sort equally into 8 bins. How many basketballs should Michael put in each bin? Write the equation below and solve for an answer.

Answer: 40 ÷ 8 = 5 basketballs

#### Lesson 14

Henry made 5 batches of muffins. If each batch of muffins contains 9 muffins, how many muffins did Henry make in all? Write the equation below and solve for an answer.

Answer:  $5 \times 9 = 40$  muffins

#### Lesson 15

Mellissa went to the store and bought 2 pairs of pants for \$15 each. Then she bought a shirt for \$38. How much did Mellissa spend at the store?

Hidden Question/Step:

Then she bought a shirt for \$38.

Answer: \_\_\_\_**\$68** 

#### Lesson 16

Fred went walking for 40 minutes a day on each of 5 days in a week. How many minutes did Fred walk in 3 weeks? Solve and record your answer below.

Answer: 600 minutes

#### Lesson 17

Complete the table below.

INPUT	OUTPUT
1	5
3	15
5	25
7	35
8	_40

#### Lesson 18

Complete the table below.

INPUT	OUTPUT
1	11
2	22
4	44
6	66
8	88

#### Lesson 19

Breakfasts cost \$3.00 at Mountain Range High School. Complete the table below showing how much it would cost for 3, 4, 7, and 9 breakfasts.

Number of Breakfasts	Cost of Breakfast
3	\$9.00
4	\$12.00
7	\$21.00
9	\$36.00

#### Lesson 20

Examine the table below. Which choice best describes the table?

Number of Plates	3	6	9	12
Number of Cookies	36	72	108	144

- **A.** Number of plates  $\times$  11 = number of plates
- **B.** Number of cookies  $\div$  11 = number of plates
- **C.** Number of plates  $\times$  12 = number of cookies
- **D.** Number of plates + 12 =number of cookies

## Pre-Assessment

Read each problem below and solve.

1. Michael has 8 bags of marbles and each bag has 15 marbles. How many marbles does Michael have in all?

Answer: 120 marbles

2. The table below shows the relationship between the number of binders purchased and the cost.

Number of Binders	1	2	3	4	5
Cost (\$)	\$2	\$4	\$6	?	?

What is the rule for this table? **Each binder costs \$2** 

**3.** Kara practices her piano 2 hours every day. If Kara practices 5 days a week, how many hours will Kara practice in 12 weeks?

Answer:\_\_\_ 120 hours

**4.** The Eastwood Student Council collected cans. There are 20 members of the council and each student collected 9 cans. The cans were put into 6 equal boxes. Which equation shows how to solve this problem?

**A.** 
$$20 + 9 \div 6 = ?$$

**B.** 
$$20 \times 9 = ?$$

**C.** 
$$20 \div 6 = ?$$

**D.** 
$$20 \times 9 \div 6 = ?$$

- **5.** Mindy put the following plants in her garden:
  - 15 rows of 9 carrot plants
  - 45 potato plants

How many plants did Mindy put her in garden?

- **A.** 69
- **B.** 180
- **C.** 54
- **D.** 60

## Partial Products with Arrays

Break down the 2-Digit number using partial products

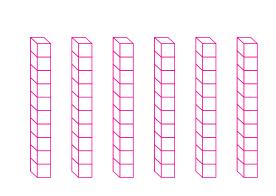
$$10 \times 4 = 40$$
  $3 \times 4 = 12$   
 $40 + 12 = 52$ 

$$22 \times 3 = 66$$

Break down the 2-Digit number using partial products

6 Tens

6 Ones

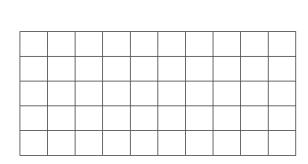


## Partial Products with Area Models

 $16 \times 5 = 80$ 

Break down the 2-Digit number using partial products

8 Tens
Ones



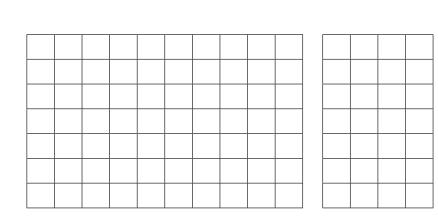
<u>50</u> + <u>30</u> = <u>80</u>

 $14 \times 7 = _{98}$ 

Break down the 2-Digit number using partial products

9 Tens

8 Ones



$$10 \times 7 = 70$$
  $4 \times 7 = 28$   
 $70 + 28 = 98$ 

# Multiplication with Standard Algorithm

$$16 \times 5 = 80$$

- **1.** Set up the standard algorithm: larger number on top.
- 2. Start in the ones place. Multiply  $\underline{6} \times \underline{5}$ .
- 3. Write the product underneath the ones place. If your product exceeds 10, carry the tens over to the tens place.
- 4. Move to the tens place.

  Multiply 10 × 5. After

  multiplying, add in the tens
  that were carried over.
- **5.** Write the product underneath the tens place.

$$24 \times 6 = 144$$

- 1. Set up the standard algorithm: larger number on top.
- 2. Start in the ones place. Multiply  $\underline{4} \times \underline{6}$ .
- 3. Write the product underneath the ones place. If your product exceeds 10, carry the tens over to the tens place.
- **4.** Move to the tens place. Multiply <u>20</u> × <u>6</u>. After multiplying, add in the tens that were carried over.
- **5.** Write the product underneath the tens place.



# 2-Digit by 1-Digit

Examine each equation and use the standard algorithm to solve.

1. 
$$33 \times 4 = 132$$

- **1.** Set up the standard algorithm: larger number on top.
- 2. Start in the ones place and multiply.
- **3.** Write the product underneath the ones place. Carry over if need be!

34 × 4

- **4.** Move to the tens place and multiply. \*Add in anything that was carried over.
- 5. Write the product underneath the tens place.

**2.** 
$$72 \times 9 = 648$$

- **1.** Set up the standard algorithm: larger number on top.
- 2. Start in the ones place and multiply.
- **3.** Write the product underneath the ones place. Carry over if need be!

72 × 9

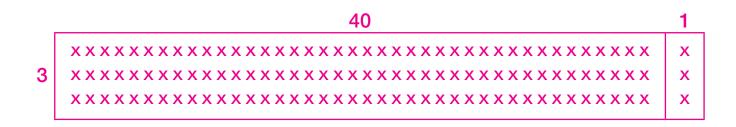
- **4.** Move to the tens place and multiply. Add in anything that was carried over.
- **5.** Write the product underneath the tens place.

16

# 2-Digit by 1-Digit Multiplication Quiz

Break apart the problem below using partial products. Then solve by drawing an array.

1. 
$$41 \times 3 = 123$$



Break apart the problem below using partial products. Then solve by drawing an area model.

**2.** 
$$23 \times 7 = 161$$

_	20	3
	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	XXX
١	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X X X
l	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	X X X
l	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	X X X
l	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X X X
l	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	X X X
	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	XXX

Solve numbers 3–5 using the standard algorithm.

## Multiplication Word Problem Quiz

Solve the problems below. Make sure to show your work and record your answers.

1. Nikki has 8 paintbrush boxes. Each box has 81 brushes in it. Which is the correct partial product equation to show how many paintbrushes Nikki has in all?

**A.**  $8 \times 81 \rightarrow (8 \times 80) + (8 \times 8) = 704$ 

**B.**  $8 \times 81 \rightarrow (8 \times 80) + (8 \times 1) = 648$ 

**C.**  $8 \times 81 \rightarrow (8 \times 8) + (8 \times 1) = 72$ 

**D.**  $8 \times 81 \rightarrow (8 \times 81) + (8 \times 80) = 1,288$ 

3. James feeds 52 pigs on his farm. Each pig gets one bowl for food and one bowl for water. How many bowls does James need to buy for his pigs? Write an equation to solve and use partial products to find your answer.

Answer: 104 bowls

5. Jenny counted 74 cars in the parking lot of Toy Mart. If each car has 4 tires, what is the total number of tires in the parking lot? Record your answer below.

Answer: \_\_\_\_\_296 tires

**7.** Determine the correct partial product layout for the equation below.

 $7 \times 49 = ?$ 

**A.**  $(7 \times 4) + (7 \times 9) = ?$ 

**B.**  $(9 \times 40) + (9 \times 7) = ?$ 

**C.**  $(7 \times 40) + (7 \times 9) = ?$ 

**D.**  $(7 \times 49) + (7 \times 49) = ?$ 

73× 5365

2. Determine the correct equation for the strip diagram below.

9 9 9 9 9 9 9 9

**A.**  $8 \times 9 = 72$ 

**B.**  $9 \times 8 = 81$ 

**C.**  $9 \times 9 = 81$ 

**D.**  $7 \times 9 = 63$ 

**4.** Kinley has 6 baskets of apples. Each basket contains 18 apples. How many apples does Kinley have in all?

**A.** 98

**B.** 48

**C.** 108

**D.** 118

**6.** Sam collected 7 buckets of seashells. If Sam placed 50 seashells in each bucket, how many seashells did Sam collect? Record your answer below.

Answer: \_\_ 350 seashells

**8.** Abby collected pairs of shoes to give to charity. Each pair has 2 shoes and there were a total of 99 pairs. How many shoes did Abby collect?

**A.** 198

**B.** 188

**C.** 199

**D.** 178

10. 8 × 504

## Division Word Problem Quiz

Solve the problems below. Make sure to show your work and record your answers.

1. Becca has 100 napkins to fold for her family's dinner party. If she can fold 10 napkins a minute, how many minutes will it take Becca to fold 100 napkins? Draw a strip diagram to model and solve the problem.

Answer: \_\_\_\_**10 minutes** 

**3.** Greg has 36 pieces of candy. If he wants to split the candy among himself and 3 friends, how many pieces of candy will each person receive?

Answer: 9 pieces of candy

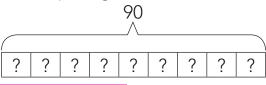
5. Kenzie puts the 96 stuffed animals she is donating into 12 equal groups. How many stuffed animals does she put into each group? Draw a strip diagram to model and solve the problem.

Answer: 8 stuffed animals

7. Jake made 54 cookies over the weekend. He wants to put the cookies in bags, but only 9 cookies fit in each bag. How many bags will Jake need to store all his cookies? Solve and record your answer below.

Answer: 6 bags

2. Determine the correct equation for the strip diagram below.



**A.**  $90 \div 9 = 10$ 

**B.**  $9 \times 10 = 90$ 

**C.**  $90 \div 9 = 11$ 

**D.**  $90 \times 9 = 810$ 

4. Tim ran 72 miles in 12 weeks. He ran the same number of miles each week. How many miles did Tim run each week? Solve and record your answer below.

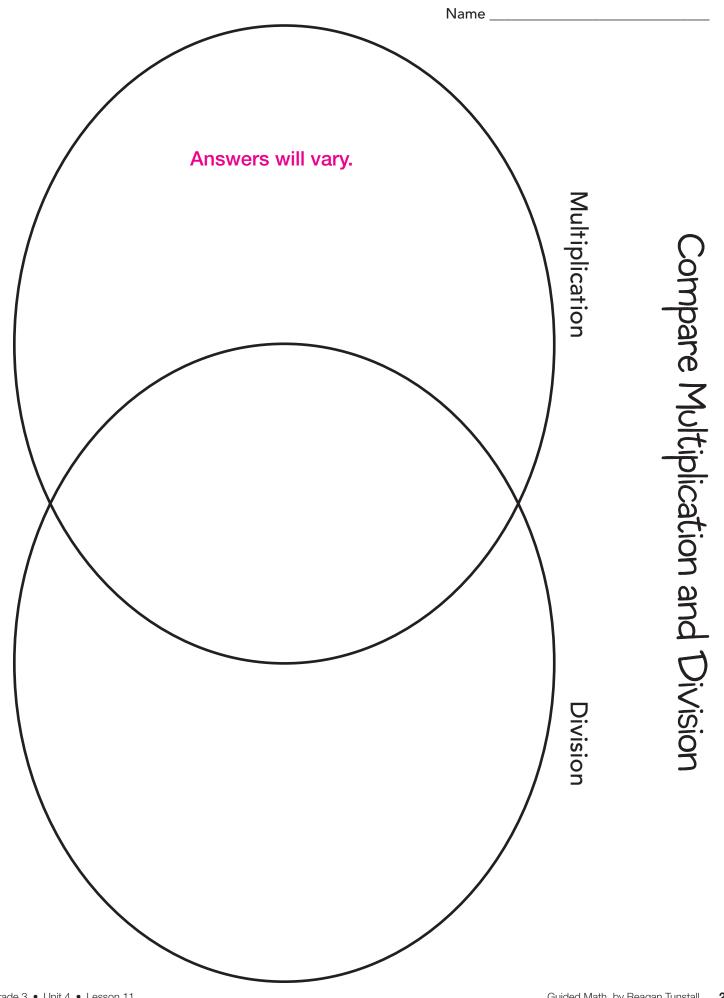
Answer: 6 miles

6. Bianca has 36 pieces of paper.
She divides the paper into 3 equal groups. How many pieces of paper will be in each group? Draw a strip diagram to model and solve the problem.

Answer: 12 pieces of paper

8. Aubrey has 60 beads to make bracelets for her friends. She puts the same number of beads on each bracelet. If Aubrey was able to make 5 bracelets, how many beads were on each bracelet?

Answer: 12 beads



# When to Multiply or Divide Quiz

- 1. Max collected 18 boxes of granola bars to donate. If each box contains 9 granola bars, how many granola bars did Max collect in all? Write the equation below and solve for an answer.
- 2. Roger has 33 dollars to split equally into 3 bank accounts. How much money should Roger put in each bank account? Write the equation below and solve for an answer.

Equation:  $18 \times 9 = 162$  granola bars

Equation:  $$33 \div 3 = $11$ 

- 3. Brendan has 75 basketballs to sort equally into 5 bins. How many basketballs should Brendan put in each bin? Write the equation below and solve for an answer.
- **4.** Kylie made 24 batches of cookies. If each batch contained 8 cookies, what is the total number of cookies that Kylie baked? Write the equation below and solve for an answer.

Equation:  $75 \div 5 = 15$  basketballs

Equation: 24 x 8 = 192 cookies

## Multi-Step Word Problem Quiz

1. Raquel purchased 7 bags of apples at the store for \$3 a bag. She also purchased 4 bags of coconuts for \$5 a bag. How much money did Raquel spend on apples and coconuts?

Hidden Question/Step

She also purchased 4 bags of coconuts for \$5 a bag.

Answer:

\$41

2. Dillon bought 6 boxes of 12 donuts at the Donuts for All store. If each donut costs \$2, how much money will Dillon spend on all the donuts?

Hidden Question/Step:

If each donut costs \$2, how much money will Dillion spend on all the donuts?

Answer:

\$144

**3.** Quinton wants to run 100 miles this week. If he runs 15 miles on each of 4 days this week, how many miles will he still have left to run by the end of the week?

Hidden Question/Step:

How many miles will he still have left to run by the end of the week?

Answer:

40 miles

## Related Number Pairs

#### Find the rule.

- 1. Examine the table. Is the output number smaller or larger than the input number? \_\_\_\_larger
- 2. What operations allow you to get larger?

  addition

  and

  multiplication
- 3. Always start with the easiest operation.

  Try \_\_\_\_\_\_.
- **4.** What \_\_plus 2 equals 8? \_\_\_\_\_6
- **5.** Does 4 **plus 6** equal 16? **no**
- **6.** Now try <u>multiplication</u>.
- 7. What <u>times</u> 2 equals 8? <u>4</u>
- 8. Does 4 times 4 equal 16? yes
- 9. Try the rest of the table.
- **10.** Solve for the empty outputs.
- 11. State the rule: for every 1 input, the out put is 4

#### Find the rule.

- 1. Output smaller or larger? smaller
- 2. Type of operation? <u>division</u>
- **3.** Try it.
- 4. Does it work? \_\_\_\_\_\_yes
- 5. Now try:  $12 \div 6 = 2$
- **6.** Does it work? \_\_\_\_\_\_\_
- 7. Fill in the table blanks.
- 8. State the rule: for each input, the output is half of the input.

INPUT	OUTPUT
2	8
4	16
6	24
8	
12	

INPUT	OUTPUT
12	6
8	4
6	3
4	
2	

## Related Number Pairs Quiz

Read each question below and solve.

1. Create a table to represent this scenario:

Abby went to the store to buy cartons of eggs. If each carton has 12 eggs, how many eggs would Abby have in 2, 4, 5, and 7 cartons?

Don't forget to title each column on the table!

Egg Cartons	Eggs
2	24
4	48
5	60
7	84

**3.** Jonathan wants to give cookies to each of his friends. If he wants to give 4 cookies to each of his friends, which table shows how many cookies he needs?

Α.	Number of Friends	2	4	7	9
	Number of Cookies	8	16	28	32

B. Number of Friends 2 4 7 9

Number of Cookies 8 14 28 32



2. Rita has been saving \$5.00 a week for a new toy. She noted how much money she had at 1, 3, 8, and 9 weeks. How much money will Rita have saved at the end of 12 weeks?

Number of Weeks	1	3	8	9
Amount of Money Saved	\$5	\$15	\$40	\$45

- **A.** \$50
- **B.** \$55
- **C.** \$60
- **D.** \$65
- **4.** Which two numbers complete the table below?

Number of Pencils	Number of Packs
81	9
63	
45	5
18	

- **A.** 9, 3
- **B.** 9, 2
- **C.** 7, 3
- **D.** 7, 2

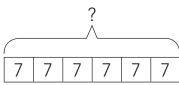
### Assessment

Read each problem below and solve.

1. 35 × 4 140

2. 18 × 9 162 3. 96 × 7 672

- 4. 58 × 6 348
- **5.** Kendall has 72 beads. If she wants to make bracelets with 9 beads each, how many bracelets can Kendall make?
  - **A.** 9
  - **B.** 8
  - **C.** 7
  - **D**. 6
- **6.** Determine the correct equation for the strip diagram below.



- **A.**  $7 \times 7 = 49$
- **B.**  $6 \times 7 = 42$
- **C.**  $7 \times 8 = 56$
- **D.**  $6 \times 7 = 49$
- 7. Dan collected 8 buckets of apples. If Dan placed 64 apples in each bucket, how many apples did Dan collect? Record your answer below.

Answer: \_\_\_\_**512 apples** 

**8.** Determine the correct partial product layout for the equation below.

$$8 \times 72 = ?$$

**A.** 
$$(8 \times 72) + (8 \times 2) = ?$$

**B.** 
$$(8 \times 20) + (8 \times 70) = ?$$

**C.** 
$$(8 \times 70) + (8 \times 2) = ?$$

**D.** 
$$(8 \times 72) + (8 \times 72) = ?$$

**9.** Jason ran 120 miles over 12 weeks. He ran the same number of miles each week. What is the number of miles that Jason ran each week? Solve and record your answer below.

Answer: 10 miles

**10.** Randi has 9 paintbrush boxes. Each box contains 64 brushes. Which equation is broken down into the correct partial products equation to show how many paintbrushes Randi has in all?

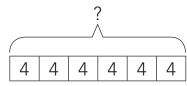
**A.** 
$$9 \times 64 \rightarrow (9 \times 60) + (9 \times 9) = ?$$

**B.** 
$$9 \times 64 \rightarrow (9 \times 60) + (6 \times 94) = ?$$

**C.** 
$$9 \times 64 \Rightarrow (9 \times 60) + (9 \times 4) = ?$$

**D.** 
$$9 \times 64 \rightarrow (9 \times 64) + (9 \times 60) = ?$$

11. Determine the correct equation for the strip diagram below.



**A.** 
$$24 \div 4 = 6$$

**B.** 
$$24 + 6 = 30$$

**C.** 
$$24 \times 6 = 144$$

**D.** 
$$24 - 6 = 18$$

**12.** Becca counted 32 cars in the parking lot at the grocery store. If each car has 4 tires, what is the total number of tires in the parking lot? Record your answer below.

Answer: 128 tires

42

**13.** Mike bought 19 candy bars for \$3 each. He gave the cashier \$60. How much change should Mike receive from the cashier?

**14.** Rick has been saving \$6.00 a week for a new toy. He noted how much money he had at 2, 4, 7, and 9 weeks. How much money will Rick have saved at the end of 11 weeks?

Number of Weeks	2	4	7	9
Amount of Money Saved	12	24	42	54

- **A.** \$59
- **C.** \$66
- **B.** \$63
- **D.** \$69
- **15.** Blake had 64 pieces of paper. He needed to divide the paper into 8 equal groups. How many pieces of paper will be in each group? Draw a strip diagram to model and solve the problem.

64							
8	8	8	8	8	8	8	8

- **16.** Jenny wants to give flowers to each of her friends. If she wants to give 7 flowers to each of her friends, which table shows how many flowers she needs?
  - A. Number of Friends 2 4 7 9

    Number of Flowers 12 24 42 54
  - Number of Friends
     2
     4
     7
     9

     Number of Flowers
     16
     32
     56
     72

C.	Number of Friends	2	4	7	9
	Number of Flowers	14	28	49	63

_					
D.	Number of Friends	2	4	7	9
	Number of Flowers	14	28	49	54

**17.** Tim practices his trombone for 2 hours every day, 4 days a week. How many hours will Tim practice his trombone in 36 weeks?

Answer: 288 hours

18. Which two numbers complete the table below?

Number of Packages	2	3	5	8
Number of Water Bottles	24		60	

- **A.** 12, 96
- **B.** 12, 36
- **C.** 36, 96
- **D.** 36, 84
- **19.** Emily wants to put her 80 marbles into 8 equal groups. How many marbles should she put into each group? Draw a strip diagram to model and solve the problem.

80 10 10 10 10 10 10 10 10 10 10 marbles in each group.

20. Examine the table below. Which choice best describes the table?

Number of Days	2	5	8	11
Number of Miles	22	55	88	121

- **A.** Number of days  $\times$  10 = number of miles
- **B.** Number of days  $\div$  11 = number of miles
- **C.** Number of days + 11 = number of miles
- **D.** Number of days  $\times$  11 = number of miles

$$23 \times 5 = 115$$

Break down the two-digit number using partial products.

<u>11</u> Tens

Ones

$$20 \times 5 = 100$$
  
 $3 \times 5 = 15$ 

$$36 \times 2 = _{2}$$

Break down the two-digit number using partial products.

- 2 Ones

$$30 \times 2 = 60$$
  
 $6 \times 2 = 12$ 

$$45 \times 4 = 180$$

18 tens 0 ones

$$40 \times 4 = 160$$
  
 $5 \times 4 = 20$ 

$$33 \times 4 = 132$$

Break down the two-digit number.

$$30 \times 4 = 120$$
  
 $3 \times 4 = 12$ 

$$41 \times 3 = 123$$

Break down the two-digit number.

\_\_\_3\_Ones

$$40 \times 3 = 120$$
  
 $1 \times 3 = 3$ 

$$23 \times 7 = 161$$

$$20 \times 7 = 140 \\ 3 \times 7 = 21$$



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Tina cut 24 apples into 8 slices each. How many slices did Tina cut in all?

3 apples

Bailey packaged brownies for all the Grade 3 classes. If she packs 2 brownies for each third grader and there are 93 third grade students, how many brownies will Bailey package in all?

186 brownies

Brian purchased 9 bags of marshmallows at the grocery store. Each bag contains 88 marshmallows. How many marshmallows does Brian have in all?

792 marshmallows

Victoria went to the pet store and bought 13 bags of dog bones. Each bag has 8 bones in it. How many bones did Victoria buy in all?

104 bones

Marsha baked 14 trays of cupcakes. If each tray holds 8 cupcakes, what is the total number of cupcakes that Marsha baked?

112 cupcakes

Wendi ran 24 miles each week. How many miles would Wendi run in 9 weeks?

216 miles

There are 53 cars in the parking lot. If each car has 4 tires on it, how many tires are in the parking lot?

A. 202

B. 212

C. 192

Richard bought 22 packages of rolls. Each package contains 8 rolls. What is the total number of rolls that Richard bought?

176 rolls

Mandy went to the store for some beads. She purchased 4 bags of beads, each containing 75 beads. How many beads did Mandy buy in all?

400 beads

Casey bought 18 cans of tennis balls. Each can has 3 tennis balls. How many tennis balls did Casey buy?

A. 54

B. 64

C. 34

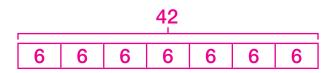
Mark bought 9 packs of flash cards at the store. If each pack contains 96 flash cards, what is the total number of flash cards that Mark bought?

864 flash cards

Greg sliced up 19 bananas. Each banana was sliced into 8 pieces. How many pieces of banana did Greg have in all?

152 pieces of banana

Ron cut up 7 oranges. He cut a total of 42 slices. How many slices came from each orange? Draw a strip diagram to model and solve the problem.

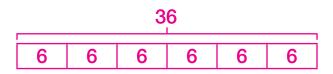


$$42 \div 7 = 6$$

Brenda made 55 cookies. If she puts 11 cookies on a tray, how many trays will Brenda need?

5 trays

Winston bought 6 boxes of dog treats. If Winston purchased a total of 36 dog treats, how many dog treats were in each box? Draw a strip diagram to model and solve the problem.



$$36 \div 6 = 6$$

Harriet has 16 muffins to split between herself and 7 friends. How many muffins will each person receive?

2 muffins

Martin bought eggs at the store. If Martin bought a total of 60 eggs and 12 eggs come in each carton, how many cartons did Martin buy?

5 cartons of eggs

John ran 70 miles in 7 days. How many miles did John run each day if he ran the same number of miles each day?

10 miles a day

Henry played a game that has 35 levels. If he completes 7 levels a day, how many days will it take for Henry to play all the levels?

A. 5

B. 6

C. 7

Jenna baked 48 cookies. If she needs to split the cookies onto 4 equal trays, how many cookies will go on each tray?

A. 10 B. 11

C. 12

Trisha used 72 beads to make 8 bracelets. If she puts the same number of beads on each bracelet, how many beads are on each bracelet?

A. 7 B. 8

C. 9

Tim ran 100 miles over 10 weeks. He ran the same number of miles each week. How many miles did Tim run each week?

A. 50 B. 10

C. 20

Lucas has 63 crackers to split among himself and 6 friends. How many crackers will each person receive?

A. 6

B. 7

C. 8

Opa bought 81 flowers. If she wants to split the flowers equally among 9 vases, how many flowers should Opa put in each vase?

A. 7 B. 8

C. 9

Blaire and Gina have 22 pieces of candy. If they want to split the candy equally between them, how many pieces of candy will they each receive?

## Question:

What are you being asked to solve?

How much candy each person will get.

#### Information:

What important information will help you solve?

How much candy there is and how many people are sharing it.

## Clue Words:

What clue words help you determine the correct operation?

split, equally

# Operation:

What operation will you use to solve this problem? Think: Is the total amount known or only the parts?

division

# **Equation:**

Write an equation to help you solve the problem.

 $22 \div 2 = ?$ 

#### Solve:

Solve the word problem by showing your work.

11 pieces of candy

Meredith has 8 baskets of tennis balls. Each basket contains 15 tennis balls. How many tennis balls does Meredith have in all?

## Question:

What are you being asked to solve?

How many tennis balls Meredith has.

#### Information:

What important information will help you solve?

How many baskets and how many tennis balls are in each basket.

#### Clue Words:

What clue words help you determine the correct operation?

in all

# Operation:

What operation will you use to solve this problem? Think: Is the total amount known or only the parts?

multiplicaiton

# **Equation:**

Write an equation to help you solve the problem.

 $8 \times 15 = ?$ 

#### Solve:

Solve the word problem by showing your work.

120 tennis balls

Cindy picked apples in her parents' orchard. She picked 7 baskets of apples. If each basket contained 35 apples, how many apples did Cindy pick?

## Question:

What are you being asked to solve?

How many apples Cindy picked.

#### Information:

What important information will help you solve?

How many baskets of apples and how many apples in each basket.

#### Clue Words:

What clue words help you determine the correct operation?

how many

## Operation:

What operation will you use to solve this problem? Think: Is the total amount known or only the parts?

multiplicaiton

# **Equation:**

Write an equation to help you solve the problem.

$$7 \times 35 = ?$$

#### Solve:

Solve the word problem by showing your work.

245 apples

Drake made 45 cupcakes for the school bake sale. If he wants to split the cupcakes equally onto 9 trays, how many cupcakes will go on each tray?

## Question:

What are you being asked to solve?

How many cupcakes go on each tray.

## Information:

What important information will help you solve?

the total number of cupcakes and how many each tray holds

## Clue Words:

What clue words help you determine the correct operation?

split, equally

# Operation:

What operation will you use to solve this problem? Think: Is the total amount known or only the parts?

division

# **Equation:**

Write an equation to help you solve the problem.

$$45 \div 9 = ?$$

#### Solve:

Solve the word problem by showing your work.

5 cupcakes

Drake made 45 cupcakes for the school bake sale. If he wants to split the cupcakes equally onto 9 trays, how many cupcakes will go on each tray?

### Question:

What are you being asked to solve?

How much candy each person will get.

### Information:

What important information will help you solve?

How much candy there is and how many people are sharing it.

### Clue Words:

What clue words help you determine the correct operation?

split, equally

### Operation:

What operation will you use to solve this problem? Think: Is the total amount known or only the parts?

division

### **Equation:**

Write an equation to help you solve the problem.

 $22 \div 2 = ?$ 

#### Solve:

Solve the word problem by showing your work.

11 pieces of candy

Melody bought 16 candy bars for \$2 each. She paid the cashier with a \$50 bill. How much change should Melody receive from the cashier?

Hidden Question/Step:

She paid the cashier with a \$50 bill.

Answer:

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\$18

Travis wanted to hike 78 miles over one week. If he hiked for five days and hiked 12 miles each day, how many miles does Travis have left to hike?

Hidden Question/Step:

He hiked for five days and hiked 12 miles each of those days.

Answer:

18 miles

Shelly bought 9 bags with 6 apples each. If each apple costs \$2, how much money will all the apples cost?

Hidden Question/Step: Each apple cost \$2

Answer: \$108

Jack split his 27 pairs of socks into 3 equal piles. How many individual socks are in each of Jack's piles?

Hidden Question/Step:
How many individual socks are there?

Answer: 18 socks

Greta purchased 3 bundles of 17 roses. If each rose costs \$3.00, how much will Greta spend on roses?

Hidden Question/Step: Each rose cost \$3.00.

Answer: \$153

Whitney bought 8 bags of oranges. Each bag of oranges costs \$6.00. If Whitney pays with a \$50 bill, how much change will she receive back?

Hidden Question/Step: Whitney pays with a \$50 bill.

Answer:

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\$2

INPUT	OUTPUT		
3	15		
6	30		
7	35		
9	45		
10	50		

INPUT	OUTPUT		
25	5		
20	4		
15	3		
10	2		
5	1		

INPUT	OUTPUT		
1	10		
11	20		
31	40		
42	51		
50	59		

Rule: \_\_\_\_\_

INPUT	OUTPUT		
17	8		
29	20		
36	27		
40	31		
56	45		

Ru	e:		

INPUT	OUTPUT		
16	8		
24	16		
32	24		
40	48		
48	56		

INPUT	OUTPUT		
3	18		
4	24		
6	36		
7	42		
9	54		

Rule: \_

Lunches cost \$2.00 at Brentwood High School. Complete the table below showing how much it would cost for 2, 6, 8, and 11 lunches.

Number of Lunches	Cost of Lunches		
2	\$4.00		
6	\$6.00		
8	\$16.00		
11	\$22.00		

Examine the table below. Which choice best describes the table?

Number of Camels	2	4	6	10
Number of Legs	8	16	24	40

- A. Number of camels  $\times$  2 = number of legs
- B. Number of camels ÷ 4 = number of legs
- C. Number of camels × 4 = number of legs
- D. Number of camels + 4 = number of legs

### Complete the table below.

INPUT	OUTPUT
6	12
8	14
14	20
30	36
32	38

Lynn wanted to buy markers at the store. Each pack of markers is \$3. What is the cost of 7 and 9 packs of markers?

Number of Packs	Cost of Marker Pack
2	\$6
6	\$18
7	\$21
9	\$27

Kate is making bracelets for her friends. If it takes 12 beads to make each bracelet, which table is correct?

A.	Number of Friends	3	4	5	8
	Number of Bracelets	36	48	60	96

B. Number of Friends 3 4 6 8

Number of 36 48 72 96

# Examine the table below. Which choice best describes the table?

Number of Days	3	5	7	9
Number of Miles	21	35	49	63

- A. Number of days  $\times$  6 = number of miles
- B. Number of days  $\div$  7 = number of miles
- C. Number of days + 7= number of miles
- D. Number of days  $\times$  7= number of miles

Tucker made a table to show how many water bottles he drank each day during his camping trip.

Number of Days	1	2	4	8
Number of Water Bottles	8	16	32	64

What is the rule for the number of water bottles that Tucker drank?

Sample answer: Tucker drank 8 bottles of water for each day. Lunches cost \$3 at Eastwood Elementary. Draw a table to show the cost of lunches for 3, 5, 6, and 10 students.

Number of Lunches	Cost
3	\$9
5	\$15
6	\$18
10	\$30

Hallie wanted to buy pies for her family's dinner. The cost of each pie is \$6.00. The table below shows the number of pies and the cost for each.

Number of Pies	1	3	4	6
Cost of Pies	\$6	\$18	\$24	\$36

How much money will Hallie spend on 7 pies?

\$42

Complete the table below and determine the rule.

Number of Tickets	2	4	7	9
Cost of Tickets	6	12	21	27

Rule: For each ticket, the cost is \$3.

Bill went to the store to buy some loaves of bread. Each loaf has 12 slices of bread. Complete the table below.

Number of Loaves	Number of Slices
1	12
3	36
5	60

### Examine the table below. Which choice best describes the table?

Number of Cars	3	4	7	9
Number of Tires	12	16	28	36

- A. Number of cars × 2 = number of tires
- B. Number of cars × 4 = number of tires
- C. Number of cars ÷ 4 = number of tires
- D. Number of cars + 4 = number of tires

### Complete the table below.

Number of Wheels	Number of Bikes
24	12
18	9
12	6
10	5

Tina went to the store to buy packs of markers. Each pack contains 8 markers. Complete the table below.

Number of Packs	Number of Markers
2	16
4	32
5	40
6	48

The table below shows how many water bottles are in 2, 5, 6, and 7 packs.

Number of Packs	2	5	6	7
Number of Bottles	24	60	72	84

How many water bottles would be in 10 packs?

A. 100

B. 110

C. 120

D. 130

Brielle wants to give each of her friends 3 bracelets. Which table below shows how many bracelets Brielle would need to make to give 3, 5, 6, and 8 of her friends 3 bracelets?

A. Number of Friends 3 5 6 9

Number of Bracelets 9 15 18 24

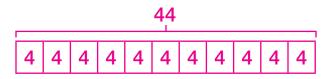
B. Number of Friends 3 5 6 8

Number of Bracelets 9 15 18 24

# Ben bought 2 packages of pencils with 36 pencils in each package. How many pencils did Ben buy?

72 pencils

A small pine tree on Mr. Matthews' ranch has 11 branches. One day, 44 birds land in the tree. If the same number of birds are on each tree branch, how many birds are on each branch? Draw a strip diagram to model and solve the problem.



 $44 \div 11 = 4$  birds on a branch

You have 27 dimes and 3 banks. You want to place an equal number of dimes in each bank. How many dimes will you place in each bank?

9 dimes in each bank

There are 14 houses on each block in Kevin's neighborhood. If there are 9 blocks in Kevin's neighborhood, how many houses are there in the neighborhood?

126 houses

Jack counted 21 tennis balls. There are 3 tennis balls in each can. How many cans of tennis balls does Jack have? Draw a strip diagram to model and solve the problem.



 $21 \div 3 = 7$  cans of tennis balls

## Examine the table below. Which choice best describes the table?

Number of Cars	4	8	9	12
Number of Wheels	16	32	36	48

- A. Number of wheels  $\times$  2 = number of cars
- B. Number of wheels  $\div$  4 = number of cars
- C. Number of wheels  $\times$  4 = number of cars
- D. Number of wheels + 4 = number of cars

Determine the correct partial product layout for the equation below.

$$8 \times 64 = ?$$

A. 
$$(8 \times 6) + (8 \times 4) = ?$$

B. 
$$(8 \times 60) + (8 \times 4) = ?$$

C. 
$$(8 \times 60) + (8 \times 6) = ?$$

D. 
$$(8 \times 40) + (8 \times 6) = ?$$

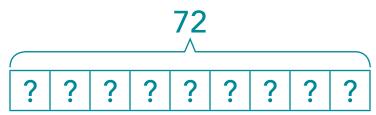
# A classroom has 3 rows of desks. Each row has 13 desks. How many desks are in the classroom?

39 desks

Derek has 56 basketball cards to give equally to 8 friends. How many basketball cards does he give to each friend?

7 basketball cards each

Determine the correct equation for the strip diagram below.



$$A.8 \times 9 = 72$$

B. 
$$8 \times 8 = 72$$

$$C.72 \div 9 = 8$$

$$D.72 \div 9 = 9$$

Dom has 34 horses. Each horse will receive a bowl of food and a bowl of water. How many bowls does Dom need to buy for his horses? Write an equation to solve and use partial products to find your answer.

$$30 \times 2 = 60$$
  
 $4 \times 2 = 8$   
 $60 + 8 = 68$  bowls

Shelly went to the store to buy some pencils. Each pack of pencils contains 10 pencils. Complete the table below.

Number of Packs	3	5	_7_	9_
Number of Pencils	30	50	70	90