

CHAPTER  
2

# Estimation and Number Theory

## Worksheet 1 Estimation

Find each sum or difference. Then use rounding to check that your answer is reasonable. Round each number to the nearest 100.

Example

$$475 + 382 = ?$$

$$475 + 382 = \underline{857}$$

857 is close to 900, so the answer is reasonable.

Number	Rounded to the nearest 100
475	500
382	400
Add	900

The estimated sum is 900.

Is your answer reasonable? Yes



Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Find  $534 + 208$ .

$$534 + 208 = \underline{\hspace{2cm}}$$

Number	Rounded to the nearest 100
534	
208	
Add	

The estimated sum is \_\_\_\_\_.

Is your answer reasonable? \_\_\_\_\_

2. Find  $836 - 487$ .

$$836 - 487 = \underline{\hspace{2cm}}$$

Number	Rounded to the nearest 100
836	
487	
Subtract	

The estimated difference is \_\_\_\_\_.

Is your answer reasonable? \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find each sum or difference. Then use rounding to check that your answer is reasonable. Round each number to the nearest 1,000.**

Example

$$1,398 + 4,687 = ?$$

$$1,398 + 4,687 = \underline{6,085}$$

6,085 is close to 6,000, so the answer is reasonable.

Number	Rounded to the nearest 1,000
1,398	1,000
4,687	5,000
Add	6,000



Is your answer reasonable? Yes

**3.** Find  $4,772 + 2,409$ .

$$4,772 + 2,409 = \underline{\hspace{2cm}}$$

Number	Rounded to the nearest 1,000
4,772	
2,409	
Add	

Is your answer reasonable? \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4. Find  $14,842 - 9,221$ .

$$14,842 - 9,221 = \underline{\hspace{2cm}}$$

Number	Rounded to the nearest 1,000
14,842	
9,221	
Subtract	

Is your answer reasonable? \_\_\_\_\_

**Estimate each sum or difference using front-end estimation.**

Example

$$7,389 - 2,543 = ?$$

$$\begin{array}{r} \textcircled{7},389 \\ \downarrow \\ \hline 7,000 \end{array} - \begin{array}{r} \textcircled{2},543 \\ \downarrow \\ \hline 2,000 \end{array} = \underline{5,000}$$

The leading digit of 7,389 is 7.

The leading digit of 2,543 is 2.



5.  $3,351 + 1,469$

6.  $9,217 - 2,881$

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find each sum or difference. Then use front-end estimation to check that your answer is reasonable.**

Example

$$478 + 403 = \underline{881}$$

$$\begin{array}{r} \textcircled{4}78 \\ \downarrow \end{array} + \begin{array}{r} \textcircled{4}03 \\ \downarrow \end{array}$$

$$\text{Estimated sum: } \underline{400} + \underline{400} = \underline{800}$$

Explain: 881 is close to 800, so the answer is reasonable.

7.  $798 - 465 = \underline{\hspace{2cm}}$

$$\begin{array}{r} \textcircled{7}98 \\ \downarrow \end{array} - \begin{array}{r} \textcircled{4}65 \\ \downarrow \end{array}$$

Estimated difference:  $\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Explain: \_\_\_\_\_

8.  $2,326 + 3,639 = \underline{\hspace{2cm}}$

$$\begin{array}{r} \textcircled{2},326 \\ \downarrow \end{array} + \begin{array}{r} \textcircled{3},639 \\ \downarrow \end{array}$$

Estimated sum:  $\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Explain: \_\_\_\_\_

9.  $5,389 - 2,658 = \underline{\hspace{2cm}}$

$$\begin{array}{r} \textcircled{5},389 \\ \downarrow \end{array} - \begin{array}{r} \textcircled{2},658 \\ \downarrow \end{array}$$

Estimated difference:  $\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Explain: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find each product. Then use rounding to check that your answer is reasonable.**

*Example*

$$114 \times 3 = \underline{342}$$

342 is close to 300, so the answer is reasonable.

Number	Rounded to the nearest $100 \times 3$
114	$100 \times 3 = 300$

Is the answer reasonable? Yes



10.  $326 \times 3 = \underline{\hspace{2cm}}$

Number	Rounded to the nearest $100 \times 3$

Is the answer reasonable? \_\_\_\_\_

11.  $267 \times 2 = \underline{\hspace{2cm}}$

Number	Rounded to the nearest $100 \times 2$

Is the answer reasonable? \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find each product. Then use front-end estimation to check that your answer is reasonable.**

Example

$$79 \times 5 = \underline{395}$$

$$\begin{array}{r} \textcircled{7}9 \\ \downarrow \\ \end{array} \times 5$$

$$\underline{70} \times 5 = \underline{350}$$

The estimated product is 350.

Explain: 395 is close to 350, so the answer is reasonable.

**12.**  $54 \times 4 =$  \_\_\_\_\_

$$\begin{array}{r} \textcircled{5}4 \\ \downarrow \\ \end{array} \times 4$$

Estimated product: \_\_\_\_\_  $\times 4 =$  \_\_\_\_\_

Explain: \_\_\_\_\_

**13.**  $112 \times 3 =$  \_\_\_\_\_

$$\begin{array}{r} \textcircled{1}12 \\ \downarrow \\ \end{array} \times 3$$

Estimated product: \_\_\_\_\_  $\times 3 =$  \_\_\_\_\_

Explain: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find each quotient. Then use related multiplication facts to check that your answer is reasonable.**

*Example*

$$741 \div 3$$

$$741 \div 3 = \underline{247}$$

$$3 \times 240 = 720$$

$$3 \times 250 = 750$$

Estimated quotient:

$$750 \div 3 = \underline{250}$$

The answer is reasonable.

$$\begin{array}{r} 247 \\ 3 \overline{)741} \\ \underline{600} \\ 141 \\ \underline{120} \\ 21 \\ \underline{21} \\ 0 \end{array}$$

Multiplication is the opposite of division.



741 is closer to 750 than 720. So,  $741 \div 3$  rounds to  $750 \div 3$ .

**14.**  $496 \div 4 = \underline{\hspace{2cm}}$

$$4 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$4 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Estimated quotient:  $\underline{\hspace{2cm}} \div 4 = \underline{\hspace{2cm}}$

The answer is                                 .

**15.**  $516 \div 2 = \underline{\hspace{2cm}}$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Estimated quotient:  $\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

The answer is                                 .



Name: \_\_\_\_\_

Date: \_\_\_\_\_

16.  $780 \div 5 =$  \_\_\_\_\_

\_\_\_\_\_  $\times$  \_\_\_\_\_ = \_\_\_\_\_

\_\_\_\_\_  $\times$  \_\_\_\_\_ = \_\_\_\_\_

Estimated quotient: \_\_\_\_\_  $\div$  \_\_\_\_\_ = \_\_\_\_\_

The answer is \_\_\_\_\_.

**Solve. Decide whether to find an estimate or an exact answer.**

*Example*

724 meters of barbed wire is needed to enclose a park.  
How much barbed wire is needed to enclose 4 identical parks?

$724 \text{ m} \times 4 = 2,896 \text{ m}$

2,896 meters of barbed wire is needed.

An exact answer is needed because the question asks **how much** barbed wire is needed.



17. Ms. Katy has \$111. She wants to spend \$52 on books, \$33 on fruit, and \$21 on vegetables. Does she have enough money to buy all these things?

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**18.** A bottle contains 784 milliliters of milk. A family drinks 309 milliliters of milk in the morning and the rest of the milk in the afternoon. How much milk do they drink in the afternoon?

**19.** Caithlin spent \$14.99 on a sweater, \$5.29 on 2 pairs of socks, and \$8.99 on a blouse. About how much money did Caithlin spend in all?

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Worksheet 2 Factors

Write the missing numbers.

Example

$$14 \times 3 = \underline{42}$$

42 can be divided exactly by 14 and 3.

1.  $21 \times 5 = \underline{\hspace{2cm}}$

                     can be divided exactly by 21 and                     .

2.  $35 \times 3 = \underline{\hspace{2cm}}$

                     can be divided exactly by                      and                     .

Write the missing numbers.

Example

$$12 \times 3 = \underline{36}$$

36 is a product of 12 and 3.

12 and 3 are factors of 36.

Whole numbers can be broken into **factors**.

3.  $8 \times 12 = \underline{\hspace{2cm}}$

                     is a product of 8 and 12.

                     and                      are factors of                     .

4.  $26 \times 4 = \underline{\hspace{2cm}}$

                     is a product of 26 and 4.

                     and                      are factors of                     .

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find the quotient. Then write the missing words.**

Example

$$12 \div 4$$

$$12 \div 4 = \underline{3}$$

Can 12 be divided exactly

by 4? Yes

Is 4 a factor of 12? Yes

When a number is divided exactly by another number, there is **no remainder**.

12 is divided exactly by 4. This means that 4 is a factor of 12.



5.  $14 \div 5 = \underline{\hspace{2cm}}$

Can 14 be divided exactly by 5?                     

Is 5 a factor of 14?                     

6.  $18 \div 6 = \underline{\hspace{2cm}}$

Can 18 be divided exactly by 6?                     

Is 6 a factor of 18?                     

7.  $28 \div 7 = \underline{\hspace{2cm}}$

Can 28 be divided exactly by 7?                     

Is 7 a factor of 28?

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find the factors of each number.**

*Example*

$$\begin{aligned} 8 &= 1 \times 8 \\ &= 2 \times 4 \end{aligned}$$

The factors of 8 are 1, 2, 4, and 8.

A whole number can be written as a product of factors.



**8.**  $24 = 1 \times 24$

$$= 2 \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \times 6$$

The factors of 24 are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

**9.**  $54 = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$$= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

The factors of 54 are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

10.  $72 = \underline{\quad} \times \underline{\quad}$

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

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

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

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

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

The factors of 72 are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

11.  $108 = \underline{\quad} \times \underline{\quad}$

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

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

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

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

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

The factors of 108 are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Divide. Then answer each question.**

Example

$$15 \div 2 = \underline{7 \text{ R } 1}$$

$$16 \div 2 = \underline{8}$$

A common factor is a factor that is shared by two or more numbers.

Is 2 a common factor of 15 and 16? No



**12.**  $48 \div 3 =$  \_\_\_\_\_

$$52 \div 3 =$$
 \_\_\_\_\_

Is 3 a common factor of 48 and 52? \_\_\_\_\_

**13.**  $70 \div 5 =$  \_\_\_\_\_

$$95 \div 5 =$$
 \_\_\_\_\_

Is 5 a common factor of 70 and 95? \_\_\_\_\_

**14.**  $45 \div 8 =$  \_\_\_\_\_

$$96 \div 8 =$$
 \_\_\_\_\_

Is 8 a common factor of 45 and 96? \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find the factors of each pair of numbers. Then circle the common factors.**

*Example*

12 and 21

12: ①, 2, ③, 4, 6, 12

21: ①, ③, 7, 21

Which of the circled common factors is the greatest? 3

**15.** 21 and 28

21: \_\_\_\_\_

28: \_\_\_\_\_

Which of the circled common factors is greatest? \_\_\_\_\_

**16.** 32 and 42

32: \_\_\_\_\_

42: \_\_\_\_\_

Which of the circled common factors is the greatest?

**17.** 48 and 72

48: \_\_\_\_\_

42: \_\_\_\_\_

Which of the circled common factors is the greatest? \_\_\_\_\_



**Find the greatest common factor of each pair of numbers.***Example*

16 and 24

**Step 1** Divide 16 and 24 by a common factor.

$$\begin{array}{r|l} 2 & 16, 24 \\ \hline & 8, 12 \end{array}$$

$$16 \div 2 = 8, 24 \div 2 = 12$$

**Step 2** Divide until 16 and 24 cannot be divided by a common factor other than 1.

$$\begin{array}{r|l} 2 & 16, 24 \\ \hline 2 & 8, 12 \\ \hline 2 & 4, 6 \\ \hline & 2, 3 \end{array}$$

2 and 3 have no common factor other than 1.

**Step 3** Multiply the common factors.

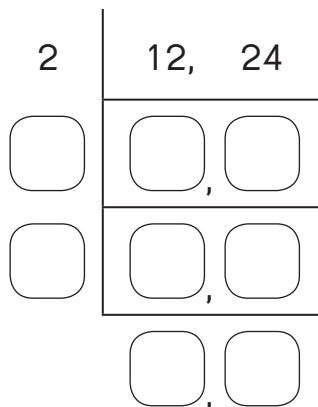
$$2 \times 2 \times 2 = 8$$

The greatest common factor is 8.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

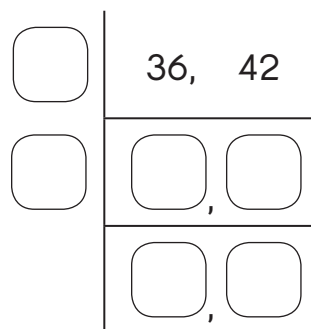
18. 12 and 24



\_\_\_ × \_\_\_ × \_\_\_ = \_\_\_

The greatest common factor is \_\_\_\_.

19. 36 and 42



\_\_\_ × \_\_\_ = \_\_\_

The greatest common factor is \_\_\_\_.

20. 54 and 72

21. 15 and 42

Answer the questions using these numbers.

- 10    15    24    36    54    75

Example

Which of the numbers have 2 as a factor?

10, 24, 36, and 54

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**22.** Which of the numbers have 3 as a factor?

\_\_\_\_\_

**23.** Which of the numbers have 5 as a factor?

\_\_\_\_\_

**24.** Which of the numbers have 3 and 5 as factors?

\_\_\_\_\_

**Find the factors of each number. Then decide whether the number is a prime number.**

*Example*

$$17 = 1 \times 17$$

The factors of 17 are 1 and 17.  
So, 17 is a prime number.

A **prime number** has only 2 different factors, 1 and itself.

**25.** 5

**26.** 9

**27.** 11

**28.** 26

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find the factors of each number. Then decide whether the number is a composite number.**

*Example*

$$\begin{aligned}6 &= 1 \times 6 \\ &= 2 \times 3\end{aligned}$$

The factors of 6 are 1, 2, 3, and 6.  
So, 6 is a composite number.

A **composite number** has more than 2 different factors.

**29.** 20

**30.** 13

**31.** 63

**32.** 41

**Which numbers in Exercises 29 to 32 are prime numbers?**

**33.** The prime numbers are \_\_\_\_\_ and \_\_\_\_\_.

**34.** Why did you choose those two numbers? Explain your reasoning.

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Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Worksheet 3 Multiples

Find the first eight multiples of each number.

A multiple of a number is the number multiplied by any whole number.



Example

$$\begin{array}{cccc} 1 \times 4 = 4 & 2 \times 4 = 8 & 3 \times 4 = 12 & 4 \times 4 = 16 \\ 5 \times 4 = 20 & 6 \times 4 = 24 & 7 \times 4 = 28 & 8 \times 4 = 32 \end{array}$$

The first eight multiples of 4 are 4, 8, 12,  
16, 20, 24, 28, and 32.

1. 6

$$\begin{array}{cccc} 1 \times 6 = \square & 2 \times 6 = \square & 3 \times 6 = \square & 4 \times 6 = \square \\ 5 \times 6 = \square & 6 \times 6 = \square & 7 \times 6 = \square & 8 \times 6 = \square \end{array}$$

The first eight multiples of 6 are \_\_\_\_\_.

2. 8

$$\begin{array}{cccc} 1 \times 8 = \square & 2 \times 8 = \square & 3 \times 8 = \square & 4 \times 8 = \square \\ 5 \times 8 = \square & 6 \times 8 = \square & 7 \times 8 = \square & 8 \times 8 = \square \end{array}$$

The first eight multiples of 8 are \_\_\_\_\_.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Circle the numbers that are not multiples of the given number.**

Example

4: 4, 14, 16, 20, 34, 44

4 is a factor of all the multiples of 4.  
The numbers 4, 16, 20, and 44 can be divided exactly by 4. So, they are multiples of 4.



3. 3: 12, 15, 18, 21, 23

4. 5: 5, 15, 25, 51, 55

5. 7: 7, 17, 21, 27, 35, 42, 56, 63

6. 9: 18, 36, 39, 45, 47, 49, 54, 63, 72, 79

**Check (✓) the correct box. Then write the missing numbers and words.**

Example

Is 14 a multiple of 2?

$$\begin{array}{r} 7 \\ 2 \overline{) 14} \\ \underline{14} \\ 0 \end{array}$$

Use division to determine whether a number is a multiple of another number.



Yes, 14 is the seventh multiple of 2.

No, 14 is not a multiple of 2. It cannot be divided exactly by 2.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

7. Is 24 a multiple of 3?

$$\begin{array}{r} \square \\ 3 \overline{) 24} \\ \square \\ \hline \square \end{array}$$

Yes, 24 is the \_\_\_\_\_ multiple of 3.

No, 24 is not a multiple of 3. It cannot be divided exactly by 3.

8. Is 45 a multiple of 6?

$$\begin{array}{r} \square \\ 6 \overline{) 45} \\ \square \\ \hline \square \end{array}$$

Yes, 45 is the \_\_\_\_\_ multiple of 6.

No, 45 is not a multiple of 6. It cannot be divided exactly by 6.

9. Is 96 a multiple of 8?

Yes, 96 is the \_\_\_\_\_ multiple of 8.

No, 96 is not a multiple of 8. It cannot be divided exactly by 8.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Circle the common multiples of each pair of numbers.  
Then write the missing numbers.**

*Example*

3: 3, 6, 9, (12), 15, 18, 21, (24), 27

4: 4, 8, (12), 16, 20, (24), 28, 32, 36

A **common multiple** is a multiple that is shared between two or more numbers.

The common multiples are 12 and 24.

The **least common multiple** is the common multiple that is less than all the others.

The least common multiple is 12.

**10.** 5: 5, 10, 15, 20, 25, 30, 35, 40, 45

7: 7, 14, 21, 28, 35, 42, 49, 56, 63

The common multiple is \_\_\_\_\_.

The least common multiple is \_\_\_\_\_.

**11.** 6: 6, 12, 18, 24, 30, 36, 42, 48, 54

8: 8, 16, 24, 32, 40, 48, 56, 64, 72

The common multiples are \_\_\_\_\_ and \_\_\_\_\_.

The least common multiple is \_\_\_\_\_.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find the first two common multiples of each pair of numbers.  
Circle them and then write the least common multiple.**

*Example*

3 and 7

3: 3, 6, 9, 12, 15, 18, (21), 24, 27, 30, 33, 36, 39, (42)

7: 7, 14, (21), 28, 35, (42), 49

The least common multiple is 21.

**12.** 2 and 5

2: \_\_\_\_\_

5: \_\_\_\_\_

The least common multiple is \_\_\_\_\_.

**13.** 6 and 9

6: \_\_\_\_\_

9: \_\_\_\_\_

The least common multiple is \_\_\_\_\_.

Name: \_\_\_\_\_

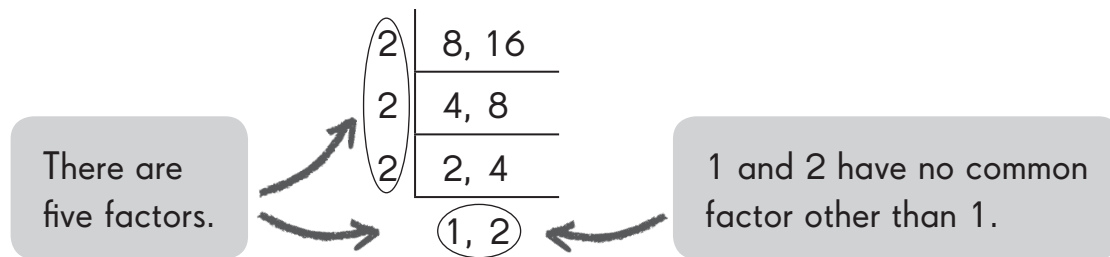
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**Find the least common multiple of each pair of numbers using division.**

*Example*

8 and 16

**Step 1** Divide 8 and 16 until they cannot be divided by a common factor other than 1.



**Step 2** Multiply the factors.

$$2 \times 2 \times 2 \times 1 \times 2 = 16$$

16 is the least common multiple of 8 and 16.

**14.** 9 and 18

**15.** 14 and 28

**16.** 15 and 45

**17.** 12 and 52

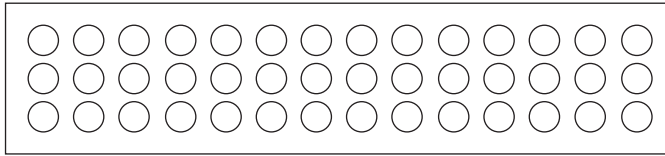
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Date: \_\_\_\_\_

## Worksheet 4 Multiplying Using Models

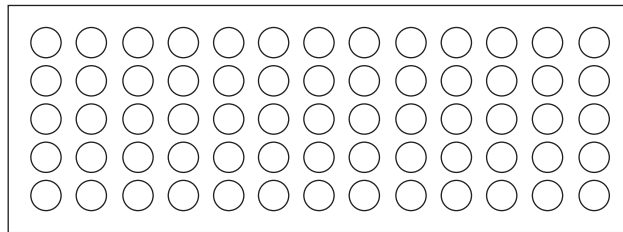
1. Study the array. Write a multiplication statement from the given diagram.

a.



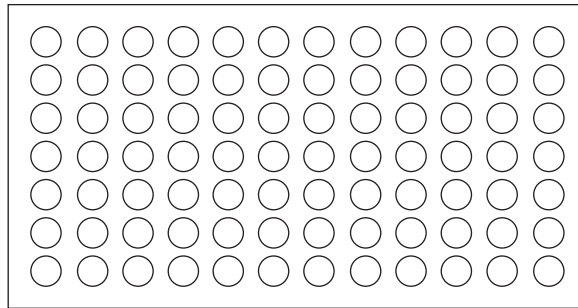
\_\_\_\_\_

b.



\_\_\_\_\_

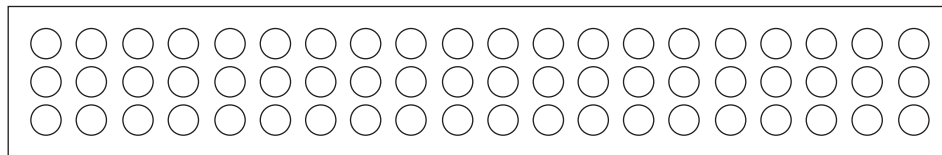
c.



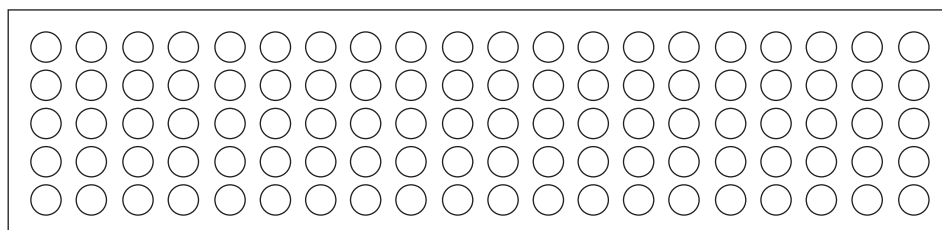
\_\_\_\_\_

2. Color dots to show the multiplication statement. Use white dots as 1 one. Cross out those unused dots.

a.  $2 \times 15$



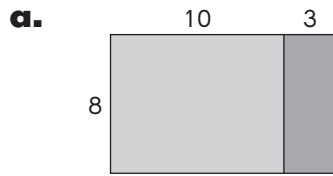
b.  $4 \times 19$



Name: \_\_\_\_\_

Date: \_\_\_\_\_

3. Study the diagram. Then write a multiplication statement.



$$\begin{aligned}8 \times \underline{\quad} &= \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad}\end{aligned}$$



$$\begin{aligned}9 \times \underline{\quad} &= \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} \\ &= \underline{\quad}\end{aligned}$$

4. Complete to show the multiplication.

a.  $7 \times 14 \rightarrow 7 \times \underline{\quad} = \underline{\quad}, 7 \times \underline{\quad} = \underline{\quad}$   
So,  $7 \times 14 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

b.  $5 \times 18 \rightarrow \underline{\quad} \times 10 = \underline{\quad}, \underline{\quad} \times 8 = \underline{\quad}$   
So,  $5 \times 18 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

c.  $2 \times 16 \rightarrow 2 \times \underline{\quad} = \underline{\quad}, \underline{\quad} \times 6 = \underline{\quad}$   
So,  $2 \times 16 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

d.  $6 \times 15 \rightarrow \underline{\quad} \times 10 = \underline{\quad}, 6 \times \underline{\quad} = \underline{\quad}$   
So,  $6 \times 15 = \underline{\quad} + \underline{\quad} = \underline{\quad}$

Name: \_\_\_\_\_

Date: \_\_\_\_\_

5. Complete to show the multiplication.

a.  $6 \times 13 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$   
 $= \underline{\quad} + \underline{\quad}$   
 $= \underline{\quad}$

b.  $4 \times 23 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$   
 $= \underline{\quad} + \underline{\quad}$   
 $= \underline{\quad}$

c.  $5 \times 37 = \underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$   
 $= \underline{\quad} + \underline{\quad}$   
 $= \underline{\quad}$

6. Multiply

a.  $\begin{array}{r} 18 \\ \times 7 \\ \hline \end{array}$

b.  $\begin{array}{r} 24 \\ \times 9 \\ \hline \end{array}$

c.  $\begin{array}{r} 35 \\ \times 6 \\ \hline \end{array}$

d.  $\begin{array}{r} 47 \\ \times 5 \\ \hline \end{array}$

e.  $\begin{array}{r} 29 \\ \times 8 \\ \hline \end{array}$

