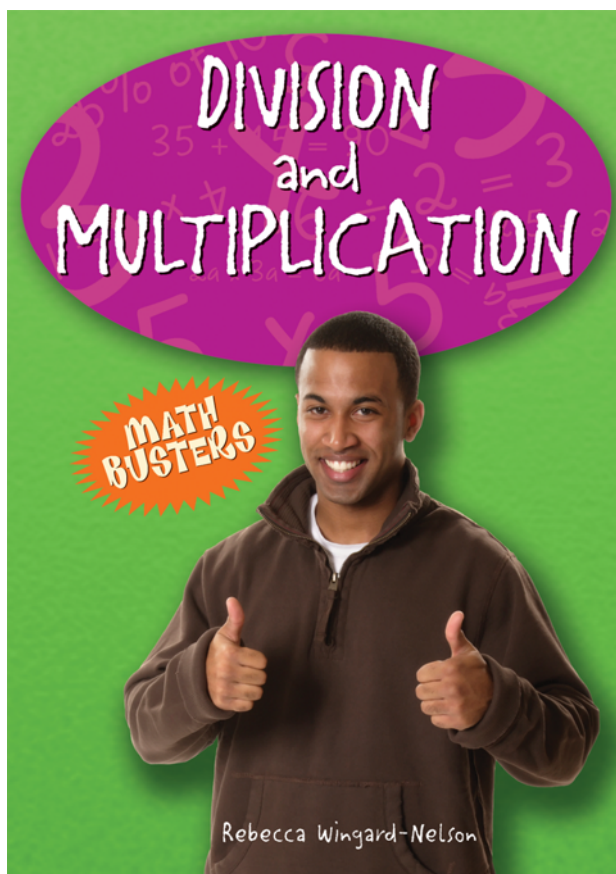


## Math Busters Reproducible Worksheets

Reproducible Worksheets  
for:

# Division and Multiplication



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# Math Busters Reproducible Worksheets

Reproducible Worksheets for:

## Division and Multiplication



These worksheets practice math concepts explained in **Division and Multiplication** (ISBN: 978-0-7660-2876-0), written by **Rebecca Wingard-Nelson**.

**Math Busters Division and Multiplication** reproducible worksheets are designed to help teachers, parents, and tutors use the books from the Math Busters series in the classroom and the home. The answers to the problems are contained in the Answers section starting on page 59.

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Name \_\_\_\_\_

Date \_\_\_\_\_

## Multiplication Power

Complete the following.

a.  $5 + 5 + 5 + 5 + 5 = \underline{\hspace{2cm}}$

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

c.  $4 + 4 + 4 + 4 + 4 + 4 = \underline{\hspace{2cm}}$

d.  $6 \times 4 = \underline{\hspace{2cm}}$

e.  $3 + 3 + 3 + 3 + 3 = \underline{\hspace{2cm}}$

f.  $5 \times 3 = \underline{\hspace{2cm}}$

g.  $8 + 8 + 8 = \underline{\hspace{2cm}}$

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

Write a multiplication sentence for each addition sentence.

i.  $7 + 7 + 7 = 21$

j.  $9 + 9 + 9 + 9 + 9 + 9 = 54$

$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

k.  $6 + 6 = 12$

l.  $1 + 1 + 1 + 1 + 1 = 5$

$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

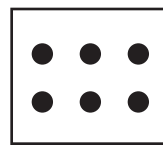
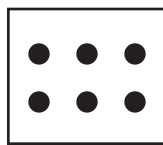
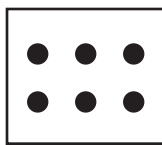
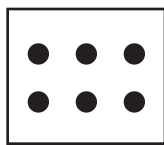
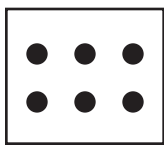
$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

Name \_\_\_\_\_

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## Multiplication Power

Write an addition and a multiplication sentence for the pictures.

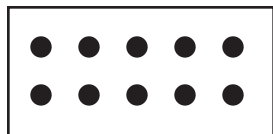


a.  $\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$

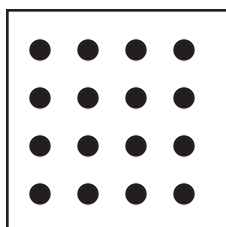
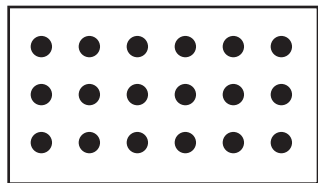
b.  $\underline{\quad} \times \underline{\quad} = \underline{\quad}$

Write a multiplication sentence for each picture.

Example:



There are 6 dots in each row. There are 2 rows.  
 $6 \times 2 = 12$



c.  $\underline{\quad} \times \underline{\quad} = \underline{\quad}$     d.  $\underline{\quad} \times \underline{\quad} = \underline{\quad}$     e.  $\underline{\quad} \times \underline{\quad} = \underline{\quad}$

Show two ways to solve this problem.

- f. Kaylee's mother bought 4 bags of bagels. There were 5 bagels in each bag. How many bagels did Kaylee's mother buy in all?

---

---

Name \_\_\_\_\_

Date \_\_\_\_\_

## Multiplication Facts

Find each product.

a. 
$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 10 \\ \times 2 \\ \hline \end{array}$$

j. 
$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$$

m. 
$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

n. 
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

o. 
$$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$$

p. 
$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

q.  $4 \times 4 = 16$ , so  $4 \times 5 =$  \_\_\_\_\_

r.  $7 \times 5 = 35$ , so  $7 \times 6 =$  \_\_\_\_\_

s.  $8 \times 3 = 24$ , so  $8 \times 4 =$  \_\_\_\_\_

t.  $8 \times 8 = 64$ , so  $8 \times 9 =$  \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

# Multiplication Facts

a. Fill in the missing numbers in the multiplication table.

	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	_____	6	7	8	9	10
2	0	2	_____	_____	8	10	_____	_____	16	18	20
3	0	3	6	9	12	_____	18	21	_____	27	30
4	0	4	_____	12	_____	_____	24	28	32	36	40
5	0	5	10	15	20	_____	30	35	40	_____	50
6	0	6	_____	18	24	_____	36	42	48	54	60
7	0	7	14	21	28	35	_____	49	56	63	70
8	0	8	_____	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	_____	90
10	0	_____	_____	_____	40	50	60	70	80	90	100

Use the multiplication table to find each product.

b.  $7 \times 8 =$  \_\_\_\_\_ c.  $8 \times 8 =$  \_\_\_\_\_ d.  $6 \times 5 =$  \_\_\_\_\_

e.  $9 \times 6 =$  \_\_\_\_\_ f.  $9 \times 7 =$  \_\_\_\_\_ g.  $3 \times 8 =$  \_\_\_\_\_

h.  $6 \times 8 =$  \_\_\_\_\_ i.  $10 \times 10 =$  \_\_\_\_\_ j.  $4 \times 9 =$  \_\_\_\_\_

k.  $3 \times 7 =$  \_\_\_\_\_ l.  $9 \times 8 =$  \_\_\_\_\_ m.  $10 \times 4 =$  \_\_\_\_\_

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Name \_\_\_\_\_

Date \_\_\_\_\_

## Beyond Basic Facts

Multiply.

Example:  $22 \times 3$     Step 1: Multiply ones. 
$$\begin{array}{r} 22 \\ \times 3 \\ \hline 6 \end{array}$$
    Step 2: Multiply tens. 
$$\begin{array}{r} 22 \\ \times 3 \\ \hline 66 \end{array}$$

a. 
$$\begin{array}{r} 24 \\ \times 2 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 13 \\ \times 3 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 22 \\ \times 2 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 12 \\ \times 3 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 42 \\ \times 2 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 12 \\ \times 2 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 42 \\ \times 3 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 34 \\ \times 2 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 32 \\ \times 3 \\ \hline \end{array}$$

j. 
$$\begin{array}{r} 14 \\ \times 2 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 41 \\ \times 3 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 40 \\ \times 2 \\ \hline \end{array}$$

Use multiplication to solve each problem.

m. A violin has 4 strings. How many strings do 12 violins have?

---

n. Kendra rode her bike 2 days and each day she rode 32 miles. How many miles did she ride in all?

---

o. There are 13 blue birds perched on a fence. How many feet are on the fence?

---

Name \_\_\_\_\_

Date \_\_\_\_\_

## Beyond Basic Facts

Multiply.

a. 
$$\begin{array}{r} 123 \\ \times 2 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 311 \\ \times 3 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 224 \\ \times 2 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 412 \\ \times 4 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 332 \\ \times 3 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 124 \\ \times 2 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 101 \\ \times 5 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 244 \\ \times 2 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 432 \\ \times 3 \\ \hline \end{array}$$

j. 
$$\begin{array}{r} 112 \\ \times 4 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 412 \\ \times 3 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 334 \\ \times 2 \\ \hline \end{array}$$

Use multiplication to solve each problem.

- m. Dasha and Jarrod each sold 134 oranges. How many oranges did they sell in all?

---

- n. There are 3 baskets with beads. Each basket has 123 beads in it. How many beads are there in all?

---

- o. Dakota read 4 books that had 122 pages each. How many pages did she read in all?

---

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Name \_\_\_\_\_

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## Regrouping: Multiplication

Multiply. Regroup as needed.

a. 
$$\begin{array}{r} 26 \\ \times 3 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 19 \\ \times 2 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 26 \\ \times 4 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 49 \\ \times 2 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 25 \\ \times 9 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 28 \\ \times 4 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 22 \\ \times 6 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 45 \\ \times 4 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 36 \\ \times 2 \\ \hline \end{array}$$

j. 
$$\begin{array}{r} 14 \\ \times 8 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 18 \\ \times 3 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 65 \\ \times 5 \\ \hline \end{array}$$

Use multiplication to solve each problem.

- m. Cadence has 37 baseball cards in her collection. Troy has twice as many as Cadence. How many cards does Troy have?

- 
- n. An African elephant can drink 45 gallons of water a day. At this rate, how many gallons will one elephant drink in two days?

- 
- o. Each of 26 students is making three paper links for a paper chain. How many links will be in their chain when it is finished?
-

Name \_\_\_\_\_

Date \_\_\_\_\_

## Regrouping: Multiplication

Multiply. Regroup as needed.

a. 
$$\begin{array}{r} 459 \\ \times 2 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 254 \\ \times 3 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 234 \\ \times 4 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 132 \\ \times 6 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 235 \\ \times 3 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 133 \\ \times 9 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 146 \\ \times 3 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 168 \\ \times 5 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 128 \\ \times 8 \\ \hline \end{array}$$

j. 
$$\begin{array}{r} 378 \\ \times 2 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 154 \\ \times 3 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 179 \\ \times 7 \\ \hline \end{array}$$

Use multiplication to solve each problem.

- m. Cassandra's family is taking a two-day trip. They plan to drive 365 miles each day. How many miles will they have driven at the end of the two days?

---

- n. There are 155 toothpicks in a box of toothpicks. How many toothpicks are in three boxes?

---

- o. Mr. Huston has 4 sheets of stickers. There are 244 stickers on each sheet. How many stickers are there in all?

---

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Name \_\_\_\_\_

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## Powers and Multiples of Ten

Multiply.

a.  $7 \times 1 = \underline{\quad}$       b.  $3 \times 1 = \underline{\quad}$       c.  $5 \times 1 = \underline{\quad}$   
 $7 \times 10 = \underline{\quad}$        $3 \times 10 = \underline{\quad}$        $5 \times 10 = \underline{\quad}$   
 $7 \times 100 = \underline{\quad}$        $3 \times 100 = \underline{\quad}$        $5 \times 100 = \underline{\quad}$   
 $7 \times 1,000 = \underline{\quad}$        $3 \times 1,000 = \underline{\quad}$        $5 \times 1,000 = \underline{\quad}$

d.  $9 \times 2 = \underline{\quad}$       e.  $4 \times 4 = \underline{\quad}$       f.  $2 \times 8 = \underline{\quad}$   
 $9 \times 20 = \underline{\quad}$        $4 \times 40 = \underline{\quad}$        $2 \times 80 = \underline{\quad}$   
 $9 \times 200 = \underline{\quad}$        $4 \times 400 = \underline{\quad}$        $2 \times 800 = \underline{\quad}$   
 $9 \times 2,000 = \underline{\quad}$        $4 \times 4,000 = \underline{\quad}$        $2 \times 8,000 = \underline{\quad}$

g.  $5 \times 4 = \underline{\quad}$       h.  $8 \times 5 = \underline{\quad}$       i.  $6 \times 5 = \underline{\quad}$   
 $5 \times 40 = \underline{\quad}$        $8 \times 50 = \underline{\quad}$        $6 \times 50 = \underline{\quad}$   
 $5 \times 400 = \underline{\quad}$        $8 \times 500 = \underline{\quad}$        $6 \times 500 = \underline{\quad}$   
 $5 \times 4,000 = \underline{\quad}$        $8 \times 5,000 = \underline{\quad}$        $6 \times 5,000 = \underline{\quad}$

j.  $6 \times 100 = \underline{\quad}$       k.  $4 \times 1,000 = \underline{\quad}$       l.  $8 \times 10 = \underline{\quad}$

m.  $7 \times 90 = \underline{\quad}$       n.  $8 \times 2,000 = \underline{\quad}$       o.  $6 \times 70 = \underline{\quad}$

p.  $3 \times 600 = \underline{\quad}$       q.  $5 \times 300 = \underline{\quad}$       r.  $9 \times 3,000 = \underline{\quad}$

Name \_\_\_\_\_

Date \_\_\_\_\_

## Powers and Multiples of Ten

Find the missing numbers.

a. If  $4 \times 2 = \underline{8}$ , then  $40 \times 20 = \underline{\hspace{2cm}}$  and  $40 \times 200 = \underline{\hspace{2cm}}$ .

b. If  $7 \times 3 = \underline{21}$ , then  $70 \times 30 = \underline{\hspace{2cm}}$  and  $70 \times 300 = \underline{\hspace{2cm}}$ .

c. If  $6 \times 8 = \underline{48}$ , then  $60 \times 80 = \underline{\hspace{2cm}}$  and  $60 \times 800 = \underline{\hspace{2cm}}$ .

d. If  $5 \times 4 = \underline{20}$ , then  $50 \times 40 = \underline{\hspace{2cm}}$  and  $50 \times 400 = \underline{\hspace{2cm}}$ .

Multiply.

e.  $70 \times 20 = \underline{\hspace{2cm}}$     f.  $40 \times 40 = \underline{\hspace{2cm}}$     g.  $60 \times 30 = \underline{\hspace{2cm}}$

h.  $20 \times 400 = \underline{\hspace{2cm}}$     i.  $50 \times 500 = \underline{\hspace{2cm}}$     j.  $80 \times 900 = \underline{\hspace{2cm}}$

Use multiplication to solve each problem.

- k. The surface temperature of our sun is around 10,000 degrees Fahrenheit. How hot is lightning if it is 3 times hotter than the surface of the sun?

- 
- l. A whale calf can weigh 2000 pounds. If a full-grown whale weighs 40 times more than the calf, how much does the grown whale weigh?
-

Name \_\_\_\_\_

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## Multiplying by Two-Digit Numbers

Multiply.

a. 
$$\begin{array}{r} 32 \\ \times 31 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 74 \\ \times 12 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 38 \\ \times 41 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 60 \\ \times 25 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 24 \\ \times 12 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 13 \\ \times 23 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 27 \\ \times 32 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 62 \\ \times 43 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 92 \\ \times 22 \\ \hline \end{array}$$

j. 
$$\begin{array}{r} 24 \\ \times 11 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 56 \\ \times 13 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 39 \\ \times 80 \\ \hline \end{array}$$

Use multiplication to solve each problem.

- m. Ella's car gets 14 miles per gallon of gasoline. How many miles can Ella's car go on 12 gallons of gasoline?

---

- n. Cameron and his dad planted 45 soybean seeds per row. How many soybean seeds did they plant in 21 rows?

---

Name \_\_\_\_\_

Date \_\_\_\_\_

## Multiplying by Two-Digit Numbers

Multiply.

a. 
$$\begin{array}{r} 455 \\ \times 12 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 122 \\ \times 25 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 144 \\ \times 36 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 234 \\ \times 24 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 218 \\ \times 86 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 303 \\ \times 34 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 614 \\ \times 27 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 254 \\ \times 15 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 332 \\ \times 45 \\ \hline \end{array}$$

j. 
$$\begin{array}{r} 155 \\ \times 11 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 708 \\ \times 37 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 942 \\ \times 26 \\ \hline \end{array}$$

Use multiplication to solve each problem.

- m. A theater has 176 rows of seats with 18 seats in each row. How many seats are in the theater in all?

- 
- n. Abigail's Girl Scout troop has 16 members. Their goal is to sell 150 boxes of cookies each. How many boxes of cookies do they hope to sell all together?
-

Name \_\_\_\_\_

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## Greater Number Multiplication

Write each number in expanded notation.

a.  $124 = \underline{\quad} + \underline{\quad} + \underline{\quad}$

b.  $365 = \underline{\hspace{2cm}}$

c.  $697 = \underline{\hspace{2cm}}$

Fill in the missing numbers.

d.  $432 = \underline{\quad} + \underline{\quad} + \underline{\quad}$

$$432 \times 2 = (\underline{\quad} \times 2) + (\underline{\quad} \times 2) + (\underline{\quad} \times 2)$$

$$= (\underline{\hspace{1cm}}) + (\underline{\hspace{1cm}}) + (\underline{\hspace{1cm}})$$

$$432 \times 2 = \underline{\hspace{2cm}}$$

e.  $715 = \underline{\quad} + \underline{\quad} + \underline{\quad}$

$$715 \times 5 = (\underline{\quad} \times 5) + (\underline{\quad} \times 5) + (\underline{\quad} \times 5)$$

$$= (\underline{\hspace{1cm}}) + (\underline{\hspace{1cm}}) + (\underline{\hspace{1cm}})$$

$$715 \times 5 = \underline{\hspace{2cm}}$$

f.  $869 = \underline{\quad} + \underline{\quad} + \underline{\quad}$

$$869 \times 3 = (\underline{\quad} \times 3) + (\underline{\quad} \times 3) + (\underline{\quad} \times 3)$$

$$= (\underline{\hspace{1cm}}) + (\underline{\hspace{1cm}}) + (\underline{\hspace{1cm}})$$

$$869 \times 3 = \underline{\hspace{2cm}}$$

Name \_\_\_\_\_

Date \_\_\_\_\_

## Greater Number Multiplication

Multiply.

a. 
$$\begin{array}{r} 362 \\ \times 315 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 414 \\ \times 154 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 546 \\ \times 163 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 285 \\ \times 425 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 274 \\ \times 612 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 913 \\ \times 236 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 232 \\ \times 429 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 187 \\ \times 235 \\ \hline \end{array}$$

Use a multiplication equation to solve each problem.

- i. Angela spends 180 minutes on the computer each day. At this rate, how many minutes will she spend on the computer in 365 days?

- 
- j. 114 students raised \$125 each for new playground equipment. How much money did they raise in all?
-



Name \_\_\_\_\_

Date \_\_\_\_\_

## Multiplication Properties

**The Zero Product Property:** Any number multiplied by zero is zero.

**The Property of One:** Any number multiplied by one is identical to the original number.

Multiply using the zero product property and property of one.

a.  $342 \times 0 = \underline{\hspace{2cm}}$       b.  $342 \times 1 = \underline{\hspace{2cm}}$       c.  $18 \times 0 = \underline{\hspace{2cm}}$

d.  $1 \times 18 = \underline{\hspace{2cm}}$       e.  $872 \times 1 = \underline{\hspace{2cm}}$       f.  $97 \times 0 = \underline{\hspace{2cm}}$

g.  $8,740 \times 1 = \underline{\hspace{2cm}}$       h.  $163 \times 0 = \underline{\hspace{2cm}}$       i.  $0 \times 56 = \underline{\hspace{2cm}}$

j. 
$$\begin{array}{r} 642 \\ \times 1 \\ \hline \end{array}$$

k. 
$$\begin{array}{r} 27 \\ \times 1 \\ \hline \end{array}$$

l. 
$$\begin{array}{r} 415 \\ \times 0 \\ \hline \end{array}$$

m. 
$$\begin{array}{r} 713 \\ \times 1 \\ \hline \end{array}$$

n. 
$$\begin{array}{r} 84 \\ \times 0 \\ \hline \end{array}$$

o. 
$$\begin{array}{r} 8,256 \\ \times 1 \\ \hline \end{array}$$

p. 
$$\begin{array}{r} 139 \\ \times 0 \\ \hline \end{array}$$

q. 
$$\begin{array}{r} 860 \\ \times 0 \\ \hline \end{array}$$

- r. Mark has 87 bags of marbles. There are zero marbles in each bag. How many marbles does Mark have in all?

---

- s. There are 1,024 crackers in each box of animal crackers. Margo has one box. How many animal crackers does she have in all?

---

## Multiplication Properties

**The Commutative Property:** Changing the order of the factors does not change the product.

Multiply each set of numbers to test the commutative property.

a.  $5 \times 2 = \underline{\quad}$       b.  $7 \times 1 = \underline{\quad}$       c.  $8 \times 9 = \underline{\quad}$   
 $2 \times 5 = \underline{\quad}$        $1 \times 7 = \underline{\quad}$        $9 \times 8 = \underline{\quad}$   
 $5 \times 2 = 2 \times \underline{\quad}$        $7 \times 1 = 1 \times \underline{\quad}$        $8 \times 9 = 9 \times \underline{\quad}$

d. 
$$\begin{array}{r} 32 \\ \times 11 \\ \hline \end{array}$$
      
$$\begin{array}{r} 11 \\ \times 32 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 36 \\ \times 50 \\ \hline \end{array}$$
      
$$\begin{array}{r} 50 \\ \times 36 \\ \hline \end{array}$$

**The Associative Property:** Changing the grouping of the factors does not change the product.

Multiply each set of numbers to test the associative property.  
Multiply the numbers in parentheses first.

f.  $(5 \times 2) \times 16 = \underline{\quad}$       g.  $(4 \times 25) \times 8 = \underline{\quad}$   
 $5 \times (2 \times 16) = \underline{\quad}$        $4 \times (25 \times 8) = \underline{\quad}$

Decide which two numbers to multiply first. Use mental math.

h.  $4 \times 5 \times 7 = \underline{\quad}$       i.  $15 \times 4 \times 3 = \underline{\quad}$

j.  $25 \times 2 \times 90 = \underline{\quad}$       k.  $3 \times 20 \times 60 = \underline{\quad}$

## The Distributive Property

Fill in the missing numbers.

$$\begin{aligned} a. \quad 7 \times 4 &= 7 \times (2 + \underline{\quad}) \\ &= (7 \times 2) + (7 \times \underline{\quad}) \\ &= (\underline{\quad}) + (\underline{\quad}) \\ &= \underline{\quad} \end{aligned}$$

$$\begin{aligned} b. \quad 8 \times 9 &= 8 \times (5 + \underline{\quad}) \\ &= (8 \times 5) + (8 \times \underline{\quad}) \\ &= (\underline{\quad}) + (\underline{\quad}) \\ &= \underline{\quad} \end{aligned}$$

$$\begin{aligned} c. \quad 6 \times 51 &= 6 \times (50 + \underline{\quad}) \\ &= (6 \times 50) + (6 \times \underline{\quad}) \\ &= (\underline{\quad}) + (\underline{\quad}) \\ &= \underline{\quad} \end{aligned}$$

$$\begin{aligned} d. \quad 25 \times 98 &= 25 \times (100 - \underline{\quad}) \\ &= (25 \times 100) - (25 \times \underline{\quad}) \\ &= (\underline{\quad}) - (\underline{\quad}) \\ &= \underline{\quad} \end{aligned}$$

## The Distributive Property

Fill in the missing numbers.

- a. There are 32 rows of seedlings planted at a tree farm. There are 24 seedlings in each row. How many seedlings are there in all?

$$\begin{aligned} 32 \times 24 &= 32 \times (20 + 4) \\ &= (32 \times 20) + (32 \times 4) \\ &= (\underline{\quad\quad}) + (\underline{\quad\quad}) \\ &= \underline{\quad\quad} \text{ seedlings in all.} \end{aligned}$$

- b. A parking lot has 22 rows for parking. There are 22 spaces in each row. How many parking spaces are there in all?

$$\begin{aligned} 22 \times 22 &= 22 \times (\underline{\quad} + \underline{\quad}) \\ &= (\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad}) \\ &= (\underline{\quad\quad}) + (\underline{\quad\quad}) \\ &= \underline{\quad\quad\quad\quad\quad} \end{aligned}$$

Use the distributive property and mental math to solve.

- c. A marching band has 12 rows of band members with 14 in each row. How many band members are in the marching band?

---

- d. There are 39 rows of seats in the auditorium, with 25 seats in each row. How many seats are there in all? (Hint: Use subtraction.)

---

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## Division Power

Find the missing numbers.

Total	Number in Each Group	Number of Groups
<i>Example:</i> 30	5	<u>6</u>
14	7	a. _____
20	b. _____	4
24	6	c. _____
18	6	d. _____
21	e. _____	3
16	4	f. _____
15	g. _____	3
10	2	h. _____
28	4	i. _____
25	j. _____	5
18	9	k. _____
8	l. _____	4

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## Division Power

Write a division sentence for each set of subtraction sentences.

*Example:*

$15 - 5 = 10$

$10 - 5 = 5$

$5 - 5 = 0$

$15 \div 5 = 3$

$a. 12 - 6 = 6$

$6 - 6 = 0$

\_\_\_\_\_

$b. 9 - 3 = 6$

$6 - 3 = 3$

$3 - 3 = 0$

\_\_\_\_\_

$c. 8 - 2 = 6$

$6 - 2 = 4$

$4 - 2 = 2$

$2 - 2 = 0$

\_\_\_\_\_

Find each quotient.

$d. 8 \div 2 = \underline{\quad}$

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

$f. 12 \div 6 = \underline{\quad}$

$g. 18 \div 9 = \underline{\quad}$

$h. 27 \div 3 = \underline{\quad}$

$i. 32 \div 8 = \underline{\quad}$

$j. 25 \div 5 = \underline{\quad}$

$k. 20 \div 10 = \underline{\quad}$

$l. 36 \div 6 = \underline{\quad}$

Draw a line to match the following terms.

m. The answer to a division problem.

divisor

n. The number you are dividing by.

dividend

o. The number you are dividing.

quotient

Use a division equation to solve.

p. Butterfly larvae are divided evenly between two science classes. If there are 16 larvae, how many will each class have?

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## Multiplication and Division

Write the related facts for each equation.

*Example:*

$3 \times 4 = 12$	$12 \div 3 = 4$
$4 \times 3 = 12$	$12 \div 4 = 3$

a.

$4 \times 5 = 20$	

b.

$6 \times 2 = 12$	

c.

$5 \times 9 = 45$	

d.

	$18 \div 9 = 2$

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## Multiplication and Division

	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

Use the multiplication table to solve these division problems.

a.  $8 \div 2 = \underline{\quad}$

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

c.  $12 \div 6 = \underline{\quad}$

d.  $18 \div 9 = \underline{\quad}$

e.  $27 \div 3 = \underline{\quad}$

f.  $32 \div 8 = \underline{\quad}$

g.  $81 \div 9 = \underline{\quad}$

h.  $56 \div 8 = \underline{\quad}$

i.  $24 \div 3 = \underline{\quad}$

j.  $36 \div 6 = \underline{\quad}$

k.  $27 \div 9 = \underline{\quad}$

l.  $21 \div 7 = \underline{\quad}$

m.  $42 \div 7 = \underline{\quad}$

n.  $42 \div 6 = \underline{\quad}$

o.  $72 \div 8 = \underline{\quad}$

p.  $45 \div 5 = \underline{\quad}$

q.  $80 \div 8 = \underline{\quad}$

r.  $28 \div 4 = \underline{\quad}$

s.  $60 \div 10 = \underline{\quad}$

t.  $12 \div 2 = \underline{\quad}$

u.  $20 \div 5 = \underline{\quad}$

v.  $25 \div 5 = \underline{\quad}$

w.  $20 \div 10 = \underline{\quad}$

x.  $63 \div 9 = \underline{\quad}$



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## Division Facts

Fill in the missing numbers.

a.  $64 \div 8 = \underline{\quad}$       b.  $72 \div 9 = \underline{\quad}$       c.  $48 \div 6 = \underline{\quad}$

$8 \times \underline{\quad} = 64$        $9 \times \underline{\quad} = 72$        $6 \times \underline{\quad} = 48$

d.  $28 \div 7 = \underline{\quad}$       e.  $21 \div 3 = \underline{\quad}$       f.  $54 \div 6 = \underline{\quad}$

$7 \times \underline{\quad} = 28$        $3 \times \underline{\quad} = 21$        $6 \times \underline{\quad} = 54$

g.  $42 \div 6 = \underline{\quad}$       h.  $63 \div 9 = \underline{\quad}$       i.  $24 \div 3 = \underline{\quad}$

$6 \times \underline{\quad} = 42$        $9 \times \underline{\quad} = 63$        $3 \times \underline{\quad} = 24$

Circle the letter of sentence that is wrong.

- j. a. If there are 5 dog treats and 1 dog, the dog gets 5 treats.  $5 \div 1 = 5$   
b. If there are 5 dog treats and 5 dogs, each dog gets 1 treat.  $5 \div 5 = 1$   
c. If there are 0 dog treats and 0 dogs, each dog gets 5 treats.  $0 \div 0 = 5$   
d. If there are 0 dog treats and 5 dogs, each dog gets 0 treats.  $0 \div 5 = 0$

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## Division Facts

Divide.

a.  $18 \div 6 =$  \_\_\_\_\_

b.  $50 \div 5 =$  \_\_\_\_\_

c.  $16 \div 8 =$  \_\_\_\_\_

d.  $63 \div 7 =$  \_\_\_\_\_

e.  $0 \div 5 =$  \_\_\_\_\_

f.  $80 \div 10 =$  \_\_\_\_\_

g.  $24 \div 8 =$  \_\_\_\_\_

h.  $40 \div 5 =$  \_\_\_\_\_

i.  $36 \div 6 =$  \_\_\_\_\_

j.  $0 \div 6 =$  \_\_\_\_\_

k.  $3 \div 1 =$  \_\_\_\_\_

l.  $48 \div 12 =$  \_\_\_\_\_

m.  $10 \div 5 =$  \_\_\_\_\_

n.  $121 \div 11 =$  \_\_\_\_\_

o.  $24 \div 6 =$  \_\_\_\_\_

p.  $55 \div 5 =$  \_\_\_\_\_

q.  $7 \div 1 =$  \_\_\_\_\_

r.  $60 \div 5 =$  \_\_\_\_\_

s.  $28 \div 4 =$  \_\_\_\_\_

t.  $144 \div 12 =$  \_\_\_\_\_

u.  $6 \div 3 =$  \_\_\_\_\_

Use a division equation to solve each problem.

- v. Sam sold a total of 20 magazines in 5 days. He sold exactly the same number each day. How many did he sell each day?

---

- w. In gym class there are 8 basketballs and 8 students. How many basketballs will each student get if they are divided evenly?

---

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## Remainders and Divisibility

Draw a picture to divide each number. Write the division equation.

Example:  $13 \div 5$



$$13 \div 5 = 2R3$$

a.  $17 \div 5$

b.  $14 \div 6$

c.  $10 \div 3$

d.  $11 \div 2$

e.  $19 \div 4$

- f. Laura's mother made 18 pancakes to share evenly between 4 people. How many pancakes will each person get? \_\_\_\_\_  
How many extra pancakes will there be? \_\_\_\_\_

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## Remainders and Divisibility

Answer yes or no.

a. Is 342                      divisible by 2? \_\_\_\_\_  
                                     divisible by 3? \_\_\_\_\_  
                                     divisible by 6? \_\_\_\_\_

---

b. Is 846                      divisible by 2? \_\_\_\_\_  
                                     divisible by 5? \_\_\_\_\_  
                                     divisible by 9? \_\_\_\_\_

---

c. Is 1,250                    divisible by 4? \_\_\_\_\_  
                                     divisible by 5? \_\_\_\_\_  
                                     divisible by 6? \_\_\_\_\_

---

d. Is 3,110                    divisible by 3? \_\_\_\_\_  
                                     divisible by 4? \_\_\_\_\_  
                                     divisible by 5? \_\_\_\_\_  
                                     divisible by 10? \_\_\_\_\_

Solve each problem using division and remainders.

e. Jenny collected 28 eggs for her grandmother. An egg carton holds 12 eggs. How many cartons will Jenny be able to fill completely? \_\_\_\_\_

How many eggs will be left over? \_\_\_\_\_

How many cartons will Jenny need to put all of the eggs in cartons? \_\_\_\_\_

f. Mrs. Quan is having a formal dinner. The caterer has tables that seat 6, or tables that seat 8. She does not want any empty seats. If 208 people are expected, which size tables should she order? \_\_\_\_\_  
How many tables will she need? \_\_\_\_\_

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## Long Division

Divide.

Example:

$$\begin{array}{r} 12 \\ 8 \overline{)96} \\ \underline{-8} \phantom{0} \\ 16 \\ \underline{-16} \\ 0 \end{array}$$

Remember: Divide, Multiply, Subtract,  
Compare, Bring Down

a.  $3 \overline{)51}$     b.  $2 \overline{)78}$     c.  $4 \overline{)96}$     d.  $3 \overline{)87}$

e.  $6 \overline{)84}$     f.  $7 \overline{)91}$     g.  $4 \overline{)56}$     h.  $5 \overline{)80}$

i.  $2 \overline{)64}$     j.  $2 \overline{)76}$     k.  $3 \overline{)39}$     l.  $7 \overline{)84}$

m.  $4 \overline{)68}$     n.  $5 \overline{)65}$     o.  $8 \overline{)88}$     p.  $6 \overline{)72}$

- q. Cindy needs to read 84 more pages to have her reading assignment completed in 4 days.  
How many pages will she need to read each day?
-

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## Long Division

Divide.

Example:

$$\begin{array}{r} 14R3 \\ 4 \overline{)59} \\ \underline{-4} \phantom{0} \\ 19 \\ \underline{-16} \\ 3 \end{array}$$

Remember: Divide, Multiply, Subtract, Compare, Bring Down.  
Write remainders using a small capital R

a.  $7 \overline{)78}$     b.  $5 \overline{)52}$     c.  $3 \overline{)73}$     d.  $6 \overline{)95}$

e.  $3 \overline{)68}$     f.  $4 \overline{)51}$     g.  $2 \overline{)91}$     h.  $8 \overline{)92}$

i.  $3 \overline{)49}$     j.  $4 \overline{)97}$     k.  $5 \overline{)68}$     l.  $3 \overline{)61}$

m.  $6 \overline{)75}$     n.  $9 \overline{)95}$     o.  $2 \overline{)35}$     p.  $5 \overline{)87}$

- q. Steve picked 51 apples. With how many people can he share if he gives each person 2 apples? \_\_\_\_\_  
Will there be any apples left? \_\_\_\_\_  
If so, how many? \_\_\_\_\_

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## Dividing by Greater Numbers

Divide. Use multiplication to check your answers.

a.  $18 \overline{)1674}$

check:  $\begin{array}{r} 18 \\ \times \end{array}$

b.  $72 \overline{)1152}$

check:

c.  $70 \overline{)1610}$

check:

d.  $92 \overline{)1196}$

check:

e.  $14 \overline{)2800}$

check:

f.  $20 \overline{)8140}$

check:

g.  $86 \overline{)1290}$

check:

h.  $37 \overline{)2479}$

check:

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## Dividing by Greater Numbers

Divide. Use multiplication to check your answers.

a.  $15 \overline{)9960}$

check:

b.  $49 \overline{)2597}$

check:

c.  $59 \overline{)4248}$

check:

d.  $23 \overline{)6003}$

check:

e.  $88 \overline{)1144}$

check:

f.  $73 \overline{)3431}$

check:

Use a division equation to solve.

- g. If one cow produces 40 gallons of milk in one week, how many cows does it take to fill a 1,000-gallon refrigerated milk tank each week.

---



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## Dividing and Multiples of Ten

Write the basic fact for each problem. Then solve.

a. $250 \div 5 = \underline{\hspace{2cm}}$ BASIC FACT: $\underline{\hspace{2cm}}$	b. $160 \div 4 = \underline{\hspace{2cm}}$ BASIC FACT: $\underline{\hspace{2cm}}$	c. $490 \div 70 = \underline{\hspace{2cm}}$ BASIC FACT: $\underline{\hspace{2cm}}$
d. $360 \div 90 = \underline{\hspace{2cm}}$ BASIC FACT: $\underline{\hspace{2cm}}$	e. $2,800 \div 7 = \underline{\hspace{2cm}}$ BASIC FACT: $\underline{\hspace{2cm}}$	f. $2,400 \div 80 = \underline{\hspace{2cm}}$ BASIC FACT: $\underline{\hspace{2cm}}$

Find each quotient.

g.  $64 \div 8 = \underline{\hspace{2cm}}$     h.  $640 \div 80 = \underline{\hspace{2cm}}$     i.  $6,400 \div 80 = \underline{\hspace{2cm}}$

j.  $81 \div 9 = \underline{\hspace{2cm}}$     k.  $810 \div 90 = \underline{\hspace{2cm}}$     l.  $8,100 \div 900 = \underline{\hspace{2cm}}$

m.  $24 \div 4 = \underline{\hspace{2cm}}$     n.  $240 \div 40 = \underline{\hspace{2cm}}$     o.  $2,400 \div 40 = \underline{\hspace{2cm}}$

p.  $21 \div 3 = \underline{\hspace{2cm}}$     q.  $210 \div 30 = \underline{\hspace{2cm}}$     r.  $2,100 \div 300 = \underline{\hspace{2cm}}$

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## Dividing and Multiples of Ten

Use mental math to divide.

a.  $540 \div 90 =$  \_\_\_\_\_

b.  $16,000 \div 400 =$  \_\_\_\_\_

c.  $2,400 \div 600 =$  \_\_\_\_\_

d.  $4,800 \div 800 =$  \_\_\_\_\_

e.  $1,500 \div 30 =$  \_\_\_\_\_

f.  $45,000 \div 500 =$  \_\_\_\_\_

g.  $35,000 \div 5,000 =$  \_\_\_\_\_

h.  $630 \div 90 =$  \_\_\_\_\_

i.  $300 \div 60 =$  \_\_\_\_\_

j.  $1,600 \div 80 =$  \_\_\_\_\_

k.  $6,400 \div 800 =$  \_\_\_\_\_

l.  $4,000 \div 20 =$  \_\_\_\_\_

Use mental division to solve.

- m. Tara's dad earns \$36,000 in 6 months. If he earns the same amount each month, how much does he earn in one month?


---

- n. The Boy Scouts collected 200 items on their nature hike. If each of 10 Scouts collected the same number of items, how many did each collect?

---

## Estimation Power: Multiplication

Estimate by rounding each factor to the greatest place value.  
Remember: If the greatest place value is ones, leave it alone.

Example:  $7 \times 59$   
 $7 \times 60 = 420$ , so  $7 \times 59 \approx 420$ .  This means "is about equal to."

a.  $5 \times 322$

b.  $61 \times 48$

c.  $8 \times 723$

d.  $197 \times 68$

e.  $39 \times 529$

f.  $4 \times 94$

Use greatest place value estimation and multiplication to solve.

- g. West Elementary serves 483 lunches in one day. About how many lunches will they serve in 28 days?

- 
- h. The students in Ms. Cole's reading class earned 894 reading points in one week. About how many points will they earn if they do this every week for 18 weeks?

- 
- i. A local theater sold 624 tickets for \$6 per ticket. About how much money did they collect on the sale of tickets?
-

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## Estimation Power: Multiplication

Estimate by rounding each factor to the nearest ten.

Example:  $49 \times 62$   
 $50 \times 60 = 3,000$ , so  $49 \times 62 \approx 3,000$ .

a.  $18 \times 87$

b.  $42 \times 48$

c.  $11 \times 51$

d.  $37 \times 42$

e.  $78 \times 93$

f.  $56 \times 56$

Estimate by rounding to the nearest tens.	Estimate by rounding to the greatest place value.	Find the exact answer.
g. $121 \times 13$	h. $121 \times 13$	i. $121 \times 13$
j. $37 \times 248$	k. $37 \times 248$	l. $37 \times 248$

## Estimation Power: Division

Estimate by rounding each number to the greatest place value.

Example:  $178 \div 23$   
 $200 \div 20 = 10$ , so  $178 \div 23 \approx 10$ .  
This means "is about equal to."

a.  $443 \div 36$

b.  $582 \div 17$

c.  $872 \div 9$

d.  $619 \div 34$

e.  $702 \div 14$

f.  $425 \div 76$

Use greatest place value estimation and division to solve.

- g. Martha has 386 tulip bulbs. She wants to plant 18 tulips in each row. About how many rows of tulips can she plant?

- 
- h. Sandy's volleyball team collected \$792 by selling season tickets for their games. About how many people purchased season tickets if they bought them for \$18 each?

- 
- i. A single beehive can produce 110 pounds of honey in 12 months. About how many pounds can it produce per month?
-

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## Estimation Power: Division

Use compatible numbers to estimate.

Example  $1470 \div 12$   
 $1440 \div 12 = 120$ , so  $1470 \div 12 \approx 120$

a.  $157 \div 31$

b.  $251 \div 25$

c.  $647 \div 81$

d.  $354 \div 6$

e.  $323 \div 11$

f.  $95 \div 34$

Estimate using compatible numbers.	Estimate by rounding to the tens place.	Find the exact answer.
g. $426 \div 71$	h. $426 \div 71$	i. $426 \div 71$
j. $156 \div 18$	k. $156 \div 18$	l. $156 \div 18$

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## Word Problem Power: Multiplication

- a. There are about 5,000 kinds of dragonflies. There are 4 times as many kinds of grasshoppers as there are kinds of dragonflies. How many kinds of grasshoppers are there?

---

- b. When some beetles jump, they spin 70 times in one second. How many times can they spin in 5 seconds?

---

- c. If 12 ladybugs have 22 spots each, how many spots will they have all together?

---

- d. Dragonflies can fly up to 35 miles an hour. At this rate, how many miles can a dragonfly travel in 6 hours?

---

- e. A type of locust comes out of the ground to be seen only once every 17 years. How many years will it take for them to be seen 5 times?

---

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## Word Problem Power: Multiplication

- a. If one beehive has about 60,000 bees, how many bees are in 6 beehives?

---

- b. A queen bee can lay one egg every 58 seconds. How many seconds will it take for her to lay 12 eggs?

---

- c. A honeybee has 7,000 tiny eyes in each of its two big eyes. How many tiny eyes does a honeybee have in all?

---

- d. To produce 1 ounce of honey, bees will fly about 350 miles. How many miles will bees need to fly to make 16 ounces of honey?

---

- e. At a market, honey sells for \$7 per pound. How much will you need to pay for 5 pounds of honey?

---

- f. A beehive sells for \$68. How much will you pay if you are buying 12 beehives?

---



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## Word Problem Power: Division

- a. A penguin can hold its breath for 18 minutes. If a penguin has spent 216 minutes under water, how many times did it need to come up for air?

---

- b. Some penguins can swim 25 miles an hour. At this rate, how many hours will it take for a penguin to swim 75 miles?

---

- c. A cockroach can swim underwater for 40 minutes. If a cockroach spent 320 minutes in the water, how many times did it need to come up for air?

---

- d. If an ostrich ran 80 miles in 2 hours, how many miles did it run each hour?

---

- e. If 4 ostriches weigh 1,140 pounds, what is the average weight of one ostrich?

---

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## Word Problem Power: Division

- a. If a cricket rubs its wings together 2,400 times in 60 seconds, how many times each second do they rub their wings together?

---

- b. A bat catches 960 insects in 60 minutes. How many insects did it catch per minute?

---

- c. A parade of caterpillars has a total of 240 legs. Each caterpillar has 30 legs. How many caterpillars are in the parade?

---

- d. There is a parade of 5 centipedes and each has the same number of legs. They have a total of 1,750 legs. How many legs does each centipede have?

---

- e. A pack of wolves travels a combined distance of 576 miles in one night. There are 6 wolves in the pack. Each traveled the same distance. How far did each travel?

---

- f. The 5th grade is going to the zoo. A bus will seat 22 students. There are 107 students. How many buses are needed?

---

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## Multiplying with Decimals

Multiply.

Example: Multiply  $2.3 \times 2$ .

Step 1: Multiply as  
a whole number.

$$\begin{array}{r} 2.3 \\ \times 2 \\ \hline 46 \end{array}$$

Step 2: Count the decimal  
places.

$$\begin{array}{r} 2.3 \quad 1 \\ \times 2 \quad 0 \\ \hline 46 \end{array}$$

Step 3: Place the  
decimal point.

$$\begin{array}{r} 2.3 \\ \times 2 \\ \hline 4.6 \\ \phantom{4.6} \downarrow \\ \phantom{4.6} 1 \end{array}$$

a.  $\begin{array}{r} 4.2 \\ \times 6 \\ \hline \end{array}$

b.  $\begin{array}{r} 3.3 \\ \times 2 \\ \hline \end{array}$

c.  $\begin{array}{r} 7.4 \\ \times 3 \\ \hline \end{array}$

d.  $\begin{array}{r} 9.1 \\ \times 5 \\ \hline \end{array}$

e.  $\begin{array}{r} 8.5 \\ \times 4 \\ \hline \end{array}$

f.  $\begin{array}{r} 2.5 \\ \times 7 \\ \hline \end{array}$

g.  $\begin{array}{r} 5.1 \\ \times 9 \\ \hline \end{array}$

h.  $\begin{array}{r} 6.7 \\ \times 8 \\ \hline \end{array}$

i.  $\begin{array}{r} 3.12 \\ \times 4 \\ \hline \end{array}$

j.  $\begin{array}{r} 23.5 \\ \times 3 \\ \hline \end{array}$

k.  $\begin{array}{r} 2.24 \\ \times 2 \\ \hline \end{array}$

l.  $\begin{array}{r} 12.2 \\ \times 7 \\ \hline \end{array}$

m.  $\begin{array}{r} 2.14 \\ \times 5 \\ \hline \end{array}$

n.  $\begin{array}{r} 14.6 \\ \times 2 \\ \hline \end{array}$

o.  $\begin{array}{r} 3.32 \\ \times 4 \\ \hline \end{array}$

p.  $\begin{array}{r} 14.1 \\ \times 3 \\ \hline \end{array}$

Name \_\_\_\_\_

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## Multiplying with Decimals

Multiply.

a. 
$$\begin{array}{r} 25.4 \\ \times 3.4 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 3.21 \\ \times 2.3 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 28.5 \\ \times 4.2 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 18.3 \\ \times 1.7 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 62.2 \\ \times 0.51 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 81.6 \\ \times 0.3 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 20.02 \\ \times 4.4 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 2.24 \\ \times 2 \\ \hline \end{array}$$

- i. Saul and John are on the track team. Saul ran 2.5 miles. John ran 1.5 times farther than Saul. How many miles did John run?

---

- j. Sandra's mother is making costumes for a class play. She needs 18.5 yards of a fabric, which costs \$3.50 a yard. How much will the fabric cost?

---

## Dividing a Decimal

Divide.

Example:  $8 \overline{)9.6}$

Step 1: Put the decimal point  
in the answer above the  
decimal point in the  
number being divided.

$$8 \overline{)9.\overset{\cdot}{6}}$$

Step 2: Divide.

$$\begin{array}{r} 1.2 \\ 8 \overline{)9.6} \\ \underline{-8} \phantom{0} \\ 16 \\ \underline{-16} \\ 0 \end{array}$$

a.  $2 \overline{)6.2}$

b.  $5 \overline{)5.05}$

c.  $3 \overline{)6.36}$

d.  $4 \overline{)1.2}$

e.  $5 \overline{)63.5}$

f.  $2 \overline{)4.34}$

g.  $4 \overline{)7.12}$

h.  $6 \overline{)3.72}$

i.  $8 \overline{)65.6}$

j.  $5 \overline{)1.85}$

k.  $6 \overline{)6.36}$

l.  $8 \overline{)2.16}$

m.  $9 \overline{)8.73}$

n.  $6 \overline{)64.2}$

o.  $2 \overline{)9.62}$

p.  $7 \overline{)16.1}$

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## Dividing a Decimal

Divide.

a.  $3.96 \div 3$    b.  $2.08 \div 4$    c.  $2.10 \div 7$    d.  $8.19 \div 9$

e.  $47.5 \div 19$    f.  $172.2 \div 21$    g.  $7.89 \div 3$    h.  $11.5 \div 5$

i.  $2 \overline{)6.3}$    j.  $8 \overline{)96.4}$    k.  $5 \overline{)6.4}$    l.  $10 \overline{)4.26}$

- m. Kim is pouring 4 glasses of orange juice for breakfast. She wants to divide 16.8 ounces of juice evenly. How many ounces should she pour into each glass?

- 
- n. Henry has a rope that is 24.9 feet long. If he cuts it into 6 equal pieces, how long will each piece be?
-

Name \_\_\_\_\_

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## Dividing by a Decimal

Divide.

Example: Step 1: Move the decimal point the same number of places in each number to make the divisor a whole number.

$$\begin{array}{r} 0.8 \overline{) 9.6} \\ \downarrow \quad \downarrow \end{array}$$

Step 2: Divide.

$$\begin{array}{r} 12 \\ 8 \overline{) 96} \\ \underline{- 8} \phantom{0} \\ 16 \\ \underline{- 16} \\ 0 \end{array}$$

a.  $0.9 \overline{) 8.1}$

b.  $0.8 \overline{) 56}$

c.  $0.3 \overline{) 14.1}$

d.  $1.4 \overline{) 30.8}$

e.  $1.01 \overline{) 30.3}$

f.  $0.5 \overline{) 25}$

g.  $0.4 \overline{) 7.32}$

h.  $0.06 \overline{) 3.6}$

i.  $0.2 \overline{) 6.5}$

j.  $0.12 \overline{) 1.8}$

k.  $0.4 \overline{) 6.6}$

l.  $0.25 \overline{) 1.75}$

m.  $0.07 \overline{) 4.9}$

n.  $0.6 \overline{) 0.36}$

o.  $0.7 \overline{) 1.12}$

p.  $1.05 \overline{) 84}$

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## Dividing by a Decimal

Divide.

a.  $8.58 \div 1.43$

b.  $67.5 \div 2.25$

c.  $8.44 \div 4.22$

d.  $22.88 \div 3.52$

e.  $0.1 \div 0.08$

f.  $15.42 \div 5.14$

- g. On field day, Felicia hopped 10.2 yards in 30.6 seconds without stopping. How fast did she hop per yard?

---

- h. Nancy spent 11.50 hours studying for her final exams. Her friend Patty spent 2.30 hours studying. How many times longer than Patty did Nancy study?

---



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## Multiplying Fractions

Multiply. Write your answer in lowest terms.

a.  $9 \times \frac{1}{3} = \underline{\hspace{2cm}}$

b.  $4 \times \frac{1}{2} = \underline{\hspace{2cm}}$

c.  $6 \times \frac{2}{3} = \underline{\hspace{2cm}}$

d.  $8 \times \frac{3}{4} = \underline{\hspace{2cm}}$

e.  $6 \times \frac{1}{6} = \underline{\hspace{2cm}}$

f.  $2 \times \frac{1}{3} = \underline{\hspace{2cm}}$

g.  $\frac{1}{4} \times \frac{1}{3} = \underline{\hspace{2cm}}$

h.  $\frac{3}{8} \times \frac{1}{2} = \underline{\hspace{2cm}}$

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

j.  $\frac{5}{6} \times \frac{1}{2} = \underline{\hspace{2cm}}$

k.  $\frac{2}{9} \times \frac{1}{3} = \underline{\hspace{2cm}}$

l.  $\frac{4}{5} \times \frac{1}{8} = \underline{\hspace{2cm}}$

m.  $\frac{2}{5} \times \frac{1}{6} = \underline{\hspace{2cm}}$

n.  $7 \times \frac{1}{7} = \underline{\hspace{2cm}}$

o.  $\frac{1}{3} \times \frac{6}{10} = \underline{\hspace{2cm}}$

p.  $\frac{2}{7} \times \frac{1}{7} = \underline{\hspace{2cm}}$

q.  $\frac{3}{3} \times \frac{1}{3} = \underline{\hspace{2cm}}$

r.  $\frac{1}{4} \times 8 = \underline{\hspace{2cm}}$

## Multiplying Fractions

Multiply. Write your answer in lowest terms.

a.  $7 \times \frac{2}{5} = \underline{\hspace{2cm}}$       b.  $\frac{2}{5} \times \frac{1}{4} = \underline{\hspace{2cm}}$       c.  $2 \times \frac{3}{10} = \underline{\hspace{2cm}}$

d.  $\frac{5}{5} \times \frac{1}{3} = \underline{\hspace{2cm}}$       e.  $5 \times \frac{1}{3} = \underline{\hspace{2cm}}$       f.  $\frac{4}{6} \times \frac{1}{3} = \underline{\hspace{2cm}}$

g.  $\frac{2}{4} \times \frac{1}{3} = \underline{\hspace{2cm}}$       h.  $\frac{2}{4} \times \frac{3}{4} = \underline{\hspace{2cm}}$       i.  $\frac{1}{8} \times \frac{8}{1} = \underline{\hspace{2cm}}$

- j. Mrs. Hanson bought 32 ice-cream sandwiches for her class. The class ate  $\frac{3}{4}$  of the sandwiches. How many ice-cream sandwiches did the class eat?

- 
- k. Justin earned \$14 for aluminum cans he recycled. Sam's earnings were  $\frac{1}{7}$  of Justin's earnings. How much did Sam earn?
-

Name \_\_\_\_\_

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## Dividing Fractions

Divide. Write your answer in lowest terms.

a.  $4 \div \frac{1}{3} = \underline{\hspace{2cm}}$

b.  $8 \div \frac{2}{5} = \underline{\hspace{2cm}}$

c.  $6 \div \frac{1}{2} = \underline{\hspace{2cm}}$

d.  $3 \div \frac{3}{7} = \underline{\hspace{2cm}}$

e.  $1 \div \frac{5}{8} = \underline{\hspace{2cm}}$

f.  $5 \div \frac{2}{3} = \underline{\hspace{2cm}}$

g.  $7 \div \frac{3}{1} = \underline{\hspace{2cm}}$

h.  $9 \div \frac{2}{3} = \underline{\hspace{2cm}}$

i.  $2 \div \frac{1}{2} = \underline{\hspace{2cm}}$

j.  $\frac{5}{6} \div \frac{1}{2} = \underline{\hspace{2cm}}$

k.  $\frac{2}{9} \div \frac{1}{3} = \underline{\hspace{2cm}}$

l.  $\frac{4}{5} \div \frac{1}{10} = \underline{\hspace{2cm}}$

m.  $\frac{4}{5} \div \frac{1}{4} = \underline{\hspace{2cm}}$

n.  $\frac{2}{9} \div \frac{2}{3} = \underline{\hspace{2cm}}$

o.  $\frac{1}{2} \div \frac{3}{8} = \underline{\hspace{2cm}}$

## Dividing Fractions

Divide. Write your answer in lowest terms.

a.  $\frac{2}{3} \div \frac{8}{9} = \underline{\hspace{2cm}}$     b.  $\frac{2}{7} \div \frac{2}{4} = \underline{\hspace{2cm}}$     c.  $\frac{2}{6} \div \frac{1}{3} = \underline{\hspace{2cm}}$

d.  $\frac{1}{5} \div \frac{1}{2} = \underline{\hspace{2cm}}$     e.  $5 \div \frac{5}{6} = \underline{\hspace{2cm}}$     f.  $\frac{3}{4} \div \frac{1}{4} = \underline{\hspace{2cm}}$

g.  $\frac{1}{3} \div \frac{1}{3} = \underline{\hspace{2cm}}$     h.  $\frac{2}{7} \div \frac{2}{3} = \underline{\hspace{2cm}}$     i.  $\frac{1}{10} \div \frac{8}{1} = \underline{\hspace{2cm}}$

- p. Andrew is making hot chocolate for his friends. He has  $\frac{3}{4}$  cup of hot chocolate mix. It takes  $\frac{1}{8}$  cup for each serving. How many servings can he make?

- 
- q. Alicia has  $\frac{1}{2}$  of a large pizza left. She wants to split it evenly between 3 people. What fraction of the whole pizza will each person get?
-

Name \_\_\_\_\_

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## Mixed Numbers

Multiply. Write your answer in lowest terms.

a.  $2\frac{1}{2} \times \frac{1}{2} = \underline{\hspace{2cm}}$

b.  $1\frac{2}{3} \times 1\frac{2}{3} = \underline{\hspace{2cm}}$

c.  $3\frac{1}{5} \times 5 = \underline{\hspace{2cm}}$

d.  $3\frac{1}{2} \times \frac{3}{4} = \underline{\hspace{2cm}}$

e.  $9\frac{1}{4} \times \frac{1}{2} = \underline{\hspace{2cm}}$

f.  $5\frac{1}{3} \times \frac{1}{6} = \underline{\hspace{2cm}}$

g.  $3\frac{2}{3} \times \frac{1}{6} = \underline{\hspace{2cm}}$

h.  $2\frac{1}{8} \times \frac{1}{8} = \underline{\hspace{2cm}}$

i.  $3\frac{1}{3} \times 4\frac{1}{2} = \underline{\hspace{2cm}}$

- j. Lori's oatmeal cookie recipe calls for  $1\frac{1}{2}$  cups of oats for each batch of cookies. If she wants to make 3 batches of cookies, how many cups of oats does she need?

---

Name \_\_\_\_\_

Date \_\_\_\_\_

## Mixed Numbers

Divide. Write your answer in lowest terms.

a.  $2\frac{1}{2} \div 1\frac{1}{4} = \underline{\hspace{2cm}}$     b.  $1\frac{2}{3} \div 1\frac{2}{3} = \underline{\hspace{2cm}}$     c.  $3 \div 5\frac{3}{4} = \underline{\hspace{2cm}}$

d.  $2\frac{1}{8} \div 1\frac{1}{8} = \underline{\hspace{2cm}}$     e.  $1\frac{1}{6} \div 3\frac{1}{6} = \underline{\hspace{2cm}}$     f.  $5\frac{1}{3} \div 1\frac{1}{6} = \underline{\hspace{2cm}}$

g.  $\frac{2}{3} \div 2\frac{1}{2} = \underline{\hspace{2cm}}$     h.  $10\frac{1}{2} \div 1\frac{1}{4} = \underline{\hspace{2cm}}$     i.  $3\frac{3}{5} \div 4 = \underline{\hspace{2cm}}$

- j. Raymond has  $1\frac{1}{2}$  cups of muffin batter, and each muffin takes  $\frac{1}{4}$  cup of batter. How many muffins will he be able to make from his batter?
- \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

## Multiplying Integers

Multiply.

a.  $-4 \times -8 =$  \_\_\_\_\_ b.  $+6 \times +4 =$  \_\_\_\_\_ c.  $-5 \times -8 =$  \_\_\_\_\_

d.  $+7 \times +10 =$  \_\_\_\_\_ e.  $-1 \times -3 =$  \_\_\_\_\_ f.  $+7 \times +2 =$  \_\_\_\_\_

g.  $+5 \times +4 =$  \_\_\_\_\_ h.  $-7 \times -8 =$  \_\_\_\_\_ i.  $+4 \times +3 =$  \_\_\_\_\_

j.  $-11 \times -4 =$  \_\_\_\_\_ k.  $-6 \times -7 =$  \_\_\_\_\_ l.  $+8 \times +2 =$  \_\_\_\_\_

m.  $+13 \times 0 =$  \_\_\_\_\_ n.  $-3 \times -9 =$  \_\_\_\_\_ o.  $-6 \times -4 =$  \_\_\_\_\_

p.  $-5 \times +1 =$  \_\_\_\_\_ q.  $+4 \times -5 =$  \_\_\_\_\_ r.  $-9 \times +6 =$  \_\_\_\_\_

s.  $-10 \times +2 =$  \_\_\_\_\_ t.  $-2 \times +4 =$  \_\_\_\_\_ u.  $-5 \times +8 =$  \_\_\_\_\_

v.  $-4 \times +3 =$  \_\_\_\_\_ w.  $+3 \times -6 =$  \_\_\_\_\_ x.  $-3 \times 0 =$  \_\_\_\_\_

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## Multiplying Integers

Multiply.

a.  $-7 \times -8 =$  \_\_\_\_\_      b.  $+4 \times +5 =$  \_\_\_\_\_      c.  $-12 \times +6 =$  \_\_\_\_\_

d.  $+7 \times +11 =$  \_\_\_\_\_      e.  $-3 \times +3 =$  \_\_\_\_\_      f.  $+9 \times -7 =$  \_\_\_\_\_

g.  $+4 \times -8 =$  \_\_\_\_\_      h.  $-6 \times -6 =$  \_\_\_\_\_      i.  $+7 \times +8 =$  \_\_\_\_\_

j.  $+12 \times -4 =$  \_\_\_\_\_      k.  $-2 \times -7 =$  \_\_\_\_\_      l.  $-3 \times +2 =$  \_\_\_\_\_

Write an integer equation for each problem and solve it.

- m. For 5 days in a row, the temperature has risen 2 degrees each day. How much has the temperature changed in all?

\_\_\_\_\_

- n. The temperature drops 3 degrees each day for 3 days in a row. How much has the temperature changed in all?

\_\_\_\_\_

- o. An oil drill digs 6 feet farther below sea level every hour. What integer represents how far the drill digs in 6 hours?

\_\_\_\_\_



Name \_\_\_\_\_

Date \_\_\_\_\_

## Dividing Integers

Divide.

a.  $-42 \div -6 =$  \_\_\_\_\_ b.  $+14 \div +2 =$  \_\_\_\_\_ c.  $-12 \div -4 =$  \_\_\_\_\_

d.  $+2 \div +1 =$  \_\_\_\_\_ e.  $-81 \div -9 =$  \_\_\_\_\_ f.  $+8 \div +2 =$  \_\_\_\_\_

g.  $+20 \div +4 =$  \_\_\_\_\_ h.  $-18 \div -3 =$  \_\_\_\_\_ i.  $+9 \div +3 =$  \_\_\_\_\_

j.  $-72 \div -8 =$  \_\_\_\_\_ k.  $-60 \div -12 =$  \_\_\_\_\_ l.  $+14 \div +7 =$  \_\_\_\_\_

m.  $+54 \div +9 =$  \_\_\_\_\_ n.  $-27 \div -9 =$  \_\_\_\_\_ o.  $-15 \div -5 =$  \_\_\_\_\_

p.  $-63 \div +7 =$  \_\_\_\_\_ q.  $+66 \div -6 =$  \_\_\_\_\_ r.  $-9 \div +1 =$  \_\_\_\_\_

s.  $-40 \div +2 =$  \_\_\_\_\_ t.  $-35 \div +7 =$  \_\_\_\_\_ u.  $-21 \div +7 =$  \_\_\_\_\_

v.  $-18 \div 0 =$  \_\_\_\_\_ w.  $+56 \div -8 =$  \_\_\_\_\_ x.  $-3 \div 1 =$  \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

## Dividing Integers

Divide.

a.  $+24 \div -6 =$  \_\_\_\_\_ b.  $-18 \div -3 =$  \_\_\_\_\_ c.  $+10 \div -2 =$  \_\_\_\_\_

d.  $+120 \div +12 =$  \_\_\_\_\_ e.  $-36 \div +3 =$  \_\_\_\_\_ f.  $+16 \div -2 =$  \_\_\_\_\_

g.  $-24 \div +8 =$  \_\_\_\_\_ h.  $-6 \div -6 =$  \_\_\_\_\_ i.  $-11 \div +1 =$  \_\_\_\_\_

j.  $-28 \div -4 =$  \_\_\_\_\_ k.  $+80 \div +8 =$  \_\_\_\_\_ l.  $+6 \div -2 =$  \_\_\_\_\_

Write an integer equation for each problem and solve it.

- m. Marie earns \$21 for 7 days of babysitting.  
How much did she earn each day?

---

- n. Marie spends the same amount every day at the school store.  
She spends \$10 in 5 days. What integer shows how Marie's  
total amount of money changes every day?

---

- o. The temperature went down 15 degrees in 3 days.  
What integer shows the average change per day?

---

## Answers

### Multiplication Power

Page 3: a. 25; b. 25; c. 24; d. 24; e. 15; f. 15; g. 24; h. 24; i.  $3 \times 7 = 21$ ;  
j.  $6 \times 9 = 54$ ; k.  $2 \times 6 = 12$ ; l.  $5 \times 1 = 5$

Page 4: a.  $6 + 6 + 6 + 6 + 6 = 30$ ; b.  $5 \times 6 = 30$ ; c.  $6 \times 3 = 18$ ;  
d.  $4 \times 4 = 16$ ; e.  $5 \times 1 = 5$ ; f.  $5 + 5 + 5 + 5 = 20$  bagels,  $5 \times 4 = 20$  bagels

### Multiplication Facts

Page 5: a. 14; b. 18; c. 20; d. 8; e. 12; f. 40; g. 18; h. 28; i. 20;  
j. 56; k. 16; l. 9; m. 16; n. 45; o. 63; p. 30; q. 20; r. 42; s. 32; t. 72

Page 6: a. Row 1: 5, Row 2: 4, 6, 12, 14, Row 3: 15, 24,  
Row 4: 8, 16, 20, Row 5: 25, 45, Row 6: 12, 30, Row 7: 42,  
Row 8: 16, Row 9: 81, Row 10: 10, 20, 30; b. 56; c. 64; d. 30;  
e. 54; f. 63; g. 24; h. 48; i. 100; j. 36; k. 21; l. 72; m. 40

### Beyond Basic Facts

Page 7: a. 48; b. 39; c. 44; d. 36; e. 84; f. 24; g. 126; h. 68; i. 96;  
j. 28; k. 123; l. 80; m.  $12 \times 4 = 48$  strings; n.  $2 \times 32 = 64$  miles;  
o.  $13 \times 2 = 26$  feet

Page 8: a. 246; b. 933; c. 448; d. 1,648; e. 996; f. 248; g. 505;  
h. 488; i. 1,296; j. 448; k. 1,236; l. 668; m.  $2 \times 134 = 268$  oranges;  
n.  $3 \times 123 = 369$  beads; o.  $4 \times 122 = 488$  pages

### Regrouping Multiplication

Page 9: a. 78; b. 38; c. 104; d. 98; e. 225; f. 112; g. 132; h. 180; i. 72;  
j. 112; k. 54; l. 325; m.  $2 \times 37 = 74$  cards; n.  $2 \times 45 = 90$  gallons;  
o.  $3 \times 26 = 78$  links

Page 10: a. 918; b. 762; c. 936; d. 792; e. 705; f. 1,197; g. 438;  
h. 840; i. 1,024; j. 756; k. 462; l. 1,253; m.  $2 \times 365 = 730$  miles;  
n.  $3 \times 155 = 465$  toothpicks; o.  $4 \times 244 = 976$  stickers

### Powers and Multiples of Ten

Page 11: a. 7, 70, 700, 7,000; b. 3, 30, 300, 3,000; c. 5, 50, 500,  
5,000; d. 18, 180, 1,800, 18,000; e. 16, 160, 1,600, 16,000;  
f. 16, 160, 1,600, 16,000; g. 20, 200, 2,000, 20,000;

h. 40, 400, 4,000, 40,000; i. 30, 300, 3,000, 30,000 j. 600;  
k. 4,000; l. 80; m. 630; n. 16,000; o. 420; p. 1,800; q. 1,500;  
r. 27,000

Page 12: a. 800, 8,000; b. 2,100, 21,000; c. 4,800, 48,000;  
d. 2,000, 20,000; e. 1,400; f. 1,600; g. 1,800; h. 8,000; i. 25,000;  
j. 72,000; k.  $3 \times 10,000 = 30,000$  degrees Fahrenheit;  
l.  $40 \times 2,000 = 80,000$  pounds

### Two-Digit Multiplication

Page 13: a. 992; b. 888; c. 1,558; d. 1,500; e. 288; f. 299; g. 864;  
h. 2,666; i. 2,024; j. 264; k. 728; l. 3,120; m.  $12 \times 14 = 168$  miles;  
n.  $21 \times 45 = 945$  seeds

Page 14: a. 5,460; b. 3,050; c. 5,184; d. 5,616; e. 18,748; f. 10,302;  
g. 16,578; h. 3,810; i. 14,940; j. 1,705; k. 26,196; l. 24,492;  
m.  $18 \times 176 = 3,168$  seats; n.  $16 \times 150 = 2,400$  boxes

### Greater Number Multiplication

Page 15: a.  $100 + 20 + 4$ ; b.  $300 + 60 + 5$ ; c.  $600 + 90 + 7$ ;  
d.  $400 + 30 + 2$ ,  $(400 \times 2) + (30 \times 2) + (2 \times 2)$ ,  $800 + 60 + 4$ , 864;  
e.  $700 + 10 + 5$ ,  $(700 \times 5) + (10 \times 5) + (5 \times 5)$ ,  $3500 + 50 + 25$ ,  
3575; f.  $800 + 60 + 9$ ,  $(800 \times 3) + (60 \times 3) + (9 \times 3)$ ,  
 $2400 + 180 + 27$ , 2607

Page 16: a. 114,030; b. 63,756; c. 88,998; d. 121,125; e. 167,688;  
f. 215,468; g. 99,528; h. 43,945; i.  $365 \times 180 = 65,700$  minutes;  
j.  $114 \times 125 = \$14,250$

### Multiplication Properties

Page 17: a. 0; b. 342; c. 0; d. 18; e. 872; f. 0; g. 8,740; h. 0; i. 0;  
j. 642; k. 27; l. 0; m. 713; n. 0; o. 8,256; p. 0; q. 0; r. 0 marbles;  
s. 1,024 animal crackers

Page 18: a. 10, 10, 5; b. 7, 7, 7; c. 72, 72, 8; d. 352, 352; e. 1,800,  
1,800; f. 160, 160; g. 800, 800; h. 140; i. 180; j. 4,500; k. 3,600

### The Distributive Property

Page 19: a. 2, 2,  $14 + 14$ , 28; b. 4, 4,  $40 + 32$ , 72; c. 1, 1,  $300 + 6$ ,  
306; d. 2, 2,  $2500 - 50$ , 2,450

Page 20: a.  $640 + 128, 768$ ; b.  $20 + 2, (22 \times 20) + (22 \times 2), 440 + 44, 484$  parking spaces; c. 168 band members; d. 975 seats

### Division Power

Page 21: a. 2; b. 5; c. 4; d. 3; e. 7; f. 4; g. 5; h. 5; i. 7; j. 5; k. 2; l. 2

Page 22: a.  $12 \div 6 = 2$ ; b.  $9 \div 3 = 3$ ; c.  $8 \div 2 = 4$ ; d. 4; e. 1; f. 2; g. 2; h. 9; i. 4; j. 5; k. 2; l. 6; m. quotient; n. divisor; o. dividend; p.  $16 \div 2 = 8$  larvae

### Multiplication and Division

Page 23: a.  $5 \times 4 = 20, 20 \div 5 = 4, 20 \div 4 = 5$ ; b.  $2 \times 6 = 12, 12 \div 6 = 2, 12 \div 2 = 6$ ; c.  $9 \times 5 = 45, 45 \div 5 = 9, 45 \div 9 = 5$ ; d.  $9 \times 2 = 18, 2 \times 9 = 18, 18 \div 2 = 9$

Page 24: a. 4; b. 1; c. 2; d. 2; e. 9; f. 4; g. 9; h. 7; i. 8; j. 6; k. 3; l. 3; m. 6; n. 7; o. 9; p. 9; q. 10; r. 7; s. 6; t. 6; u. 4; v. 5; w. 2; x. 7

### Division Facts

Page 25: a. 8, 8; b. 8, 8; c. 8, 8; d. 4, 4; e. 7, 7; f. 9, 9; g. 7, 7; h. 7, 7; i. 8, 8; j. c

Page 26: a. 3; b. 10; c. 2; d. 9; e. 0; f. 8; g. 3; h. 8; i. 6; j. 0; k. 3; l. 4; m. 2; n. 11; o. 4; p. 11; q. 7; r. 12; s. 7; t. 12; u. 2; v.  $20 \div 5 = 4$  magazines; w.  $8 \div 8 = 1$  basketball.

### Remainders and Divisibility

Page 27: a-e. Check pictures. a. 3R2; b. 2R2; c. 3R1; d. 5R1; e. 4R3; f. 4 pancakes, 2 pancakes

Page 28: a. Yes, Yes, Yes; b. Yes, No, Yes; c. No, Yes, No; d. No, No, Yes, Yes; e. 2 cartons, 4 eggs, 3 cartons; f. 8 seats per table, 26 tables

### Long Division

Page 29: a. 17; b. 39; c. 24; d. 29; e. 14; f. 13; g. 14; h. 16; i. 32; j. 38; k. 13; l. 12; m. 17; n. 13; o. 11; p. 12; q. 21 pages.

Page 30: a. 11R1; b. 10R2; c. 24R1; d. 15R5; e. 22R2; f. 12R3; g. 45R1; h. 11R4; i. 16R1; j. 24R1; k. 13R3; l. 20R1; m. 12R3; n. 10R5; o. 17R1; p. 17R2; q. 25 people, Yes, 1 apple

### Dividing by Greater Numbers

Page 31: a. 93; b. 16; c. 23; d. 13; e. 200; f. 407; g. 15; h. 67

Page 32: a. 664; b. 53; c. 72; d. 261; e. 13; f. 47;  
g.  $1,000 \div 40 = 25$  cows

### Division and Multiples of Ten

Page 33: a. 50,  $25 \div 5 = 5$ ; b. 40,  $16 \div 4 = 4$ ; c. 7,  $49 \div 7 = 7$ ;  
d. 4,  $36 \div 9 = 4$ ; e. 400,  $28 \div 7 = 4$ ; f. 30,  $24 \div 8 = 3$ ; g. 8;  
h. 8; i. 80; j. 9; k. 9; l. 9; m. 6; n. 6; o. 60; p. 7; q. 7; r. 7

Page 34: a. 6; b. 40; c. 4; d. 6; e. 50; f. 90; g. 7; h. 7; i. 5; j. 20;  
k. 8; l. 200; m. \$6,000; n. 20 items

### Estimation Power: Multiplication

Page 35: a. 1,500; b. 3,000; c. 5,600; d. 14,000; e. 20,000; f. 360;  
g. 15,000 lunches; h. 18,000 reading points; i. \$3,600

Page 36: a. 1,800; b. 2,000; c. 500; d. 1,600; e. 7,200; f. 3,600;  
g. 1,200; h. 1,000; i. 1,573; j. 10,000; k. 8,000; l. 9,176

### Estimation Power: Division

Page 37: a. 10; b. 30; c. 100; d. 20; e. 70; f. 5; g. About 20 rows;  
h. About 40 people; i. About 10 pounds.

Page 38: a. 5; b. 10; c. 8; d. 60; e. 30; f. 3; g. 6; h. 6; i. 6; j. 10; k. 8;  
l. 8R12

### Word Problem Power: Multiplication

Page 39: a. 20,000 kinds of grasshoppers; b. 350 times;  
c. 264 spots; d. 210 miles; e. 85 years

Page 40: a. 360,000 bees; b. 696 seconds; c. 14,000 eyes;  
d. 5,600 miles; e. \$35; f. \$816

### Word Problem Power: Division

Page 41: a. 12 times; b. 3 hours; c. 8 times; d. 40 miles;  
e. 285 pounds

Page 42: a. 40 times ; b. 16 insects; c. 8 caterpillars;  
d. 350 legs each; e. 96 miles; f. 5 buses

### Multiplying with Decimals

Page 43: a. 25.2; b. 6.6; c. 22.2; d. 45.5; e. 34; f. 17.5; g. 45.9;  
h. 53.6; i. 12.48; j. 70.5; k. 4.48; l. 85.4; m. 10.7; n. 29.2; o. 13.28;  
p. 42.3

Page 44: a. 86.36; b. 7.383; c. 119.7; d. 31.11; e. 31.722; f. 24.48;  
g. 88.088; h. 4.48; i. 3.75 miles; j. \$64.75

### Dividing a Decimal

Page 45: a. 3.1; b. 1.01; c. 2.12; d. 0.3; e. 12.7; f. 2.17; g. 1.78; h. 0.62;  
i. 8.2; j. 0.37; k. 1.06; l. 0.27; m. 0.97; n. 10.7; o. 4.81; p. 2.3

Page 46: a. 1.32; b. 0.52; c. 0.3; d. 0.91; e. 2.5; f. 8.2; g. 2.63; h. 2.3;  
i. 3.15; j. 12.05; k. 1.28; l. 0.426; m. 4.2 ounces; n. 4.15 feet long

### Dividing by a Decimal

Page 47: a. 9; b. 70; c. 47; d. 22; e. 30; f. 50; g. 18.3; h. 60; i. 32.5;  
j. 15; k. 16.5; l. 7; m. 70; n. 0.6; o. 1.6; p. 80

Page 48: a. 6; b. 30; c. 2; d. 6.5; e. 1.25; f. 3; g. 3 seconds;  
h. 5 times longer

### Multiplying Fractions

Page 49: a. 3; b. 2; c. 4; d. 6; e. 1; f.  $\frac{2}{3}$ ; g.  $\frac{1}{12}$ ; h.  $\frac{3}{16}$ ; i.  $\frac{1}{5}$ ; j.  $\frac{5}{12}$ ;  
k.  $\frac{2}{27}$ ; l.  $\frac{1}{10}$ ; m.  $\frac{1}{15}$ ; n. 1; o.  $\frac{1}{5}$ ; p.  $\frac{2}{49}$ ; q.  $\frac{1}{3}$ ; r. 2

Page 50: a.  $\frac{24}{5}$ ; b.  $\frac{1}{10}$ ; c.  $\frac{3}{5}$ ; d.  $\frac{1}{3}$ ; e.  $1\frac{2}{3}$ ; f.  $\frac{2}{9}$ ; g.  $\frac{1}{6}$ ;  
h.  $\frac{3}{8}$ ; i. 1; j. 24 ice-cream sandwiches.; k. \$2

## Dividing Fractions

Page 51: a. 12; b. 20; c. 12; d. 7; e.  $1\frac{3}{5}$ ; f.  $7\frac{1}{2}$ ; g.  $2\frac{1}{3}$ ; h.  $13\frac{1}{2}$ ; i. 4;  
j.  $12\frac{2}{3}$ ; k.  $\frac{2}{3}$ ; l. 8; m.  $3\frac{1}{5}$ ; n.  $\frac{1}{3}$ ; o.  $1\frac{1}{3}$

Page 52: a.  $\frac{3}{4}$ ; b.  $\frac{4}{7}$ ; c. 1; d.  $\frac{2}{5}$ ; e. 6; f. 3; g. 1; h.  $\frac{3}{7}$ ; i.  $\frac{1}{80}$ ;  
j. 6 servings; k.  $\frac{1}{6}$  of the pizza.

## Mixed Numbers

Page 53: a.  $1\frac{1}{4}$ ; b.  $2\frac{7}{9}$ ; c. 16; d.  $2\frac{5}{8}$ ; e.  $4\frac{5}{8}$ ; f.  $\frac{8}{9}$ ; g.  $\frac{11}{18}$ ;  
h.  $\frac{17}{64}$ ; i. 15; j.  $4\frac{1}{2}$  cups of oats.

Page 54: a. 2; b. 1; c.  $\frac{12}{23}$ ; d.  $1\frac{8}{9}$ ; e.  $\frac{7}{19}$ ; f.  $4\frac{4}{7}$ ; g.  $\frac{4}{15}$ ; h.  $8\frac{2}{5}$ ; i.  
 $\frac{9}{10}$ ; j. 6 muffins.

## Multiplying Integers

Page 55: a. +32; b. +24; c. +40; d. +70; e. +3; f. +14; g. +20; h. +56;  
i. +12; j. +44; k. +42; l. +16; m. 0; n. +27; o. +24; p. -5; q. -20; r. -54;  
s. -20; t. -8; u. -40; v. -12; w. -18; x. 0

Page 56: a. +56; b. +20; c. -72; d. +77; e. -9; f. -63; g. -32; h. +36;  
i. +56; j. -48; k. +14; l. -6; m.  $+5 \times +2 = +10$  degrees;  
n.  $-3 \times +3 = -9$  degrees; o.  $-6 \times +6 = -36$  feet

## Dividing Integers

Page 57: a. +7; b. +7; c. +3; d. +2; e. +9; f. +4; g. +5; h. +6; i. +3;  
j. +9; k. +5; l. +2; m. +6; n. +3; o. +3; p. -9; q. -11; r. -9; s. -20; t. -5;  
u. -3; v. 0; w. -7; x. -3

Page 58: a. -4; b. +6; c. -5; d. +10; e. -12; f. -8; g. -3; h. +1; i. -11;  
j. +7; k. +10; l. -3; m.  $+21 \div +7 = +\$3$ , or \$3; n.  $-10 \div +5 = -2$   
dollars; o.  $-15 \div +3 = -5$  degrees