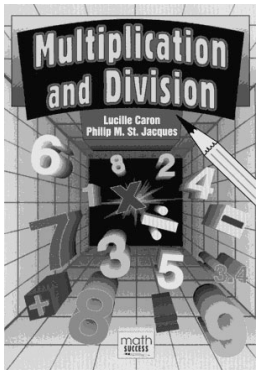
Math Success Reproducible Worksheets

Reproducible Worksheets for:

Multiplication and Division



These worksheets practice math concepts explained in **Multiplication and Division** (ISBN 0-7660-1431–2), written by Lucille Caron and Philip M. St. Jacques.

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Name _____ Date _____

Multiplication Facts and Repeated Addition

Example: **$5 + 5 + 5 = 15$ or $3 \times 5 = 15$**

Express the following addition examples as multiplication facts.

a. $6 + 6 = 12$ or _____

b. $7 + 7 + 7 + 7 = 28$ or _____

c. $4 + 4 + 4 = 12$ or _____

d. $8 + 8 + 8 + 8 + 8 = 40$ or _____

e. $2 + 2 + 2 = 6$ or _____

f. $3 + 3 + 3 + 3 = 12$ or _____

Give the product of these factors.

a. $3 \times 1 =$ _____	b. $5 \times 5 =$ _____	c. $7 \times 7 =$ _____	d. $5 \times 0 =$ _____
e. $3 \times 5 =$ _____	f. $6 \times 6 =$ _____	g. $5 \times 9 =$ _____	h. $2 \times 8 =$ _____
i. $2 \times 4 =$ _____	j. $7 \times 8 =$ _____	k. $4 \times 4 =$ _____	l. $7 \times 9 =$ _____
m. $3 \times 2 =$ _____	n. $2 \times 1 =$ _____	o. $4 \times 7 =$ _____	p. $8 \times 8 =$ _____
q. $4 \times 5 =$ _____	r. $5 \times 8 =$ _____	s. $5 \times 6 =$ _____	t. $6 \times 9 =$ _____
u. $3 \times 4 =$ _____	v. $8 \times 9 =$ _____	w. $6 \times 7 =$ _____	x. $8 \times 0 =$ _____
y. $3 \times 6 =$ _____	z. $5 \times 7 =$ _____	aa. $3 \times 3 =$ _____	bb. $2 \times 6 =$ _____
cc. $4 \times 6 =$ _____	dd. $6 \times 0 =$ _____	ee. $4 \times 9 =$ _____	ff. $6 \times 8 =$ _____

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Name _____ Date _____

Multiplying by Multiples of Ten

Multiplying by 10 and Multiples of 10

Example: 6×20
Drop the zero. $6 \times 2 = 12$
Replace the zero in answer. $6 \times 20 = 120$

a. $9 \times 80 =$ _____ b. $3 \times 90 =$ _____ c. $4 \times 60 =$ _____

d. $17 \times 10 =$ _____ e. $5 \times 50 =$ _____ f. $8 \times 20 =$ _____

Multiplying by 100 and Multiples of 100

Example: 7×400
Drop the zeros. $7 \times 4 = 28$
Replace the zeros in answer. $7 \times 400 = 2{,}800$

a. $2 \times 300 =$ _____ b. $9 \times 800 =$ _____ c. $5 \times 600 =$ _____

d. $8 \times 700 =$ _____ e. $7 \times 600 =$ _____ f. $4 \times 900 =$ _____

Multiplying by 1,000 and Multiples of 1,000

Example: $2 \times 6{,}000$
Drop the zeros. $2 \times 6 = 12$
Replace the zeros in answer. $2 \times 6{,}000 = 12{,}000$

a. $7 \times 4{,}000 =$ _____ b. $3 \times 8{,}000 =$ _____ c. $4 \times 5{,}000 =$ _____

d. $6 \times 9{,}000 =$ _____ e. $8 \times 6{,}000 =$ _____ f. $9 \times 1{,}000 =$ _____

Multiplying by 10,000 and Multiples of 10,000

Example: $3 \times 10{,}000$
Drop the zeros. $3 \times 1 = 3$
Replace the zeros in answer. $3 \times 10{,}000 = 30{,}000$

a. $7 \times 20{,}000 =$ _____ b. $4 \times 80{,}000 =$ _____ c. $7 \times 50{,}000 =$ _____

d. $6 \times 60{,}000 =$ _____ e. $8 \times 50{,}000 =$ _____ f. $9 \times 70{,}000 =$ _____

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Name _____ Date _____

Multiplying with Regrouping

There are three ways to multiply 425 × 3:

1. Add 425 + 425 + 425 = 1,275
2. Use place value. 3 × 5 (ones) = 15
   3 × 20 (tens) = 60
   3 × 400 (hundreds) = 1,200 Add 15 + 60 + 1,200 = 1,275
3. Regroup.

$$\begin{array}{r} {}^{1} \\ 425 \\ \underline{\times\ 3} \\ 1{,}275 \end{array}$$

Multiply.

a. $\begin{array}{r} 821 \\ \underline{\times\ 9} \end{array}$ b. $\begin{array}{r} 417 \\ \underline{\times\ 7} \end{array}$ c. $\begin{array}{r} 409 \\ \underline{\times\ 7} \end{array}$ d. $\begin{array}{r} 670 \\ \underline{\times\ 2} \end{array}$ e. $\begin{array}{r} 233 \\ \underline{\times\ 6} \end{array}$

Using Partial Products

Example: Multiply 48 × 35 using partial products.

$$\begin{array}{r} 48 \\ \underline{\times\ 5} \\ 240 \end{array} \text{ partial product} \qquad \begin{array}{r} 48 \\ \underline{\times\ 30} \\ 1{,}440 \end{array} \text{ partial product} \qquad \begin{array}{r} 1{,}440 \\ \underline{+\ 240} \\ 1{,}680 \end{array} \text{ Answer}$$

a. $\begin{array}{r} 24 \\ \underline{\times\ 53} \end{array}$ b. $\begin{array}{r} 32 \\ \underline{\times\ 18} \end{array}$

c. $\begin{array}{r} 81 \\ \underline{\times\ 16} \end{array}$ d. $\begin{array}{r} 58 \\ \underline{\times\ 15} \end{array}$

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Name _____ Date _____

Multiplying Greater Numbers

Example:

$$\begin{array}{r} {\scriptstyle 1\,2} \\ 136 \\ \times\ 24 \\ \hline 544 \end{array} \qquad \begin{array}{r} {\scriptstyle 1} \\ 136 \\ \times\ 24 \\ \hline 544 \\ +\ 272 \\ \hline 3{,}264 \end{array}$$

a. $\begin{array}{r} 143 \\ \times\ 27 \\ \hline \end{array}$ b. $\begin{array}{r} 286 \\ \times\ 51 \\ \hline \end{array}$ c. $\begin{array}{r} 392 \\ \times\ 86 \\ \hline \end{array}$ d. $\begin{array}{r} 157 \\ \times\ 33 \\ \hline \end{array}$

e. $\begin{array}{r} 413 \\ \times\ 44 \\ \hline \end{array}$ f. $\begin{array}{r} 524 \\ \times\ 17 \\ \hline \end{array}$ g. $\begin{array}{r} 921 \\ \times\ 35 \\ \hline \end{array}$ h. $\begin{array}{r} 821 \\ \times\ 29 \\ \hline \end{array}$

Multiplying Numbers that Have Zeros

Example:

$$\begin{array}{r} 205 \\ \times\ 130 \\ \hline 6150 \\ +\ 205 \\ \hline 26{,}650 \end{array} \qquad \begin{array}{r} 548 \\ \times\ 406 \\ \hline 3288 \\ +\ 21920 \\ \hline 222{,}488 \end{array}$$

a. $\begin{array}{r} 716 \\ \times\ 910 \\ \hline \end{array}$ b. $\begin{array}{r} 853 \\ \times\ 570 \\ \hline \end{array}$ c. $\begin{array}{r} 204 \\ \times\ 460 \\ \hline \end{array}$ d. $\begin{array}{r} 709 \\ \times\ 250 \\ \hline \end{array}$

e. $\begin{array}{r} 536 \\ \times\ 204 \\ \hline \end{array}$ f. $\begin{array}{r} 613 \\ \times\ 108 \\ \hline \end{array}$ g. $\begin{array}{r} 902 \\ \times\ 507 \\ \hline \end{array}$ h. $\begin{array}{r} 475 \\ \times\ 306 \\ \hline \end{array}$

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Name _____ Date _____

Multiplication and Estimation

Rounding to the Nearest Tens

Example: **88 rounds to 90**

Round to the nearest tens.

a. 76 _____ b. 13 _____ c. 45 _____ d. 62 _____

e. 27 _____ f. 31 _____ g. 82 _____ h. 57 _____

Rounding to the Nearest Hundreds

Example: **78 rounds to 100**

Round to the nearest hundreds.

a. 55 _____ b. 122 _____ c. 165 _____ d. 67 _____

Exact Answer vs. Estimated Answer

Compare the products by rounding to tens, to hundreds, and giving the exact product. You will find that rounding to tens gives you an answer closer to the exact product.

Problem	Rounding to Tens	Rounding to Hundreds	Exact
6×78	$6 \times 80 = \mathbf{480}$	$6 \times 100 = \mathbf{600}$	$6 \times 78 = \mathbf{468}$
a. 7×121	_____	_____	_____
b. 4×92	_____	_____	_____
c. 10×66	_____	_____	_____
d. 8×155	_____	_____	_____
e. 6×119	_____	_____	_____
f. 5×186	_____	_____	_____

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Name _____ Date _____

Multiplying Time

Changing Weeks to Hours or Minutes

Example:

How many hours are there in 4 weeks?
4 weeks × 7 days/week = 28 days
28 days × 24 hours/day = 672 hours

How many minutes are in 3 weeks?
3 weeks × 7 days/week = 21 days
21 days × 24 hours/day = 504 hours
504 hours × 60 minutes/hour = 30,240 minutes

a. How many hours are there in 6 weeks?

b. How many hours are there in 52 weeks?

c. How many minutes are there in 4 weeks?

d. How many minutes are there in 10 weeks?

Changing Years to Months

Example: How many months are there in 10 years?
10 years × 12 months/year = 120 months

a. How many months are there in 16 years?

b. How many months are there in 25 years?

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Name _____ Date _____

Multiplying Decimals

Multiplying a Decimal by a Whole Number

Example: 0.5×3 Multiply as whole numbers, ignoring the decimal point.

$5 \times 3 = 15$

There is one decimal place in the example, and so there must be one decimal place in the answer. $0.5 \times 3 = 1.5$

a. $\begin{array}{r} 13.6 \\ \underline{\times\ 8} \end{array}$

b. $\begin{array}{r} 1.36 \\ \underline{\times\ 8} \end{array}$

c. $\begin{array}{r} 8.7 \\ \underline{\times\ 6} \end{array}$

d. $\begin{array}{r} 204 \\ \underline{\times\ 3.4} \end{array}$

e. $\begin{array}{r} 18.5 \\ \underline{\times\ 21} \end{array}$

f. $\begin{array}{r} 1.14 \\ \underline{\times\ 13} \end{array}$

g. $\begin{array}{r} 3.46 \\ \underline{\times\ 9} \end{array}$

h. $\begin{array}{r} 0.401 \\ \underline{\times\ 5} \end{array}$

Multiplying a Decimal by a Decimal

Example: Multiply 2.3×13.5

Multiply as whole numbers.

Place the decimal in the product.

Start at the right and move the decimal point two places to the left.

$$\begin{array}{rl} {\scriptstyle 1\,1} & \\ 13.5 & \text{1 decimal place} \\ \underline{\times\ 2.3} & \underline{\text{1 decimal place}} \\ 40\ 5 & \\ \underline{270} & \\ 31.0\ 5 & \text{2 decimal places} \end{array}$$

a. $\begin{array}{r} 4.3 \\ \underline{\times\ 0.05} \end{array}$

b. $\begin{array}{r} 0.063 \\ \underline{\times\ 0.9} \end{array}$

c. $\begin{array}{r} 3.4 \\ \underline{\times\ 0.3} \end{array}$

d. $\begin{array}{r} 0.0018 \\ \underline{\times\ 0.4} \end{array}$

e. $\begin{array}{r} 0.37 \\ \underline{\times\ 0.44} \end{array}$

f. $\begin{array}{r} 4.56 \\ \underline{\times\ 0.06} \end{array}$

g. $\begin{array}{r} 0.09 \\ \underline{\times\ 0.03} \end{array}$

h. $\begin{array}{r} 0.42 \\ \underline{\times\ 0.11} \end{array}$

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Name _____ Date _____

Multiplying Money

Example: Multiply 7 × $1.98
Multiply as whole numbers.
Count the total of decimal places in each factor.

6 5	
1.98	2 decimal places
× 7	0 decimal places
1386	2 decimal places

The answer will have the same number of decimal places as the total number of decimal places in both factors. Counting from right to left, place the decimal point in your answer.

$13.86 ← Start here and move two places to the left.

a. $3.06 × 7

b. $15.37 × 8

c. $22.43 × 6

d. $94.02 × 9

Multiplying Money Amounts and Decimals

Example: Multiply 0.5 × $2.75
Multiply as whole numbers.
Counting from the right, place the decimal point in the product 3 places to the left.

3 2	
2.75	2 decimal places
× 0.5	1 decimal place
1.375	3 decimal places = $1.38

a. $6.27 × 0.4

b. $5.43 × 0.6

c. $7.12 × 0.8

d. $3.21 × 0.7

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Name _____ Date _____

Multiplying Fractions

Example: $\frac{1}{4} \times 7 = \frac{1}{4} \times \frac{7}{1} = \frac{1 \times 7}{4 \times 1} = \frac{7}{4} = 1\frac{3}{4}$

a. $\frac{1}{3} \times 6 =$

b. $\frac{1}{2} \times 5 =$

c. $\frac{2}{5} \times 5 =$

d. $\frac{3}{7} \times 7 =$

Multiplying a Fraction by a Fraction

Example: $\frac{1}{3} \times \frac{2}{5} = \frac{1 \times 2}{3 \times 5} = \frac{2}{15}$

Multiply. Remember to write your answer in lowest terms.

a. $\frac{1}{2} \times \frac{3}{4} =$

b. $\frac{3}{4} \times \frac{1}{5} =$

c. $\frac{7}{10} \times \frac{7}{10} =$

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

e. $\frac{1}{2} \times \frac{4}{5} =$

f. $\frac{1}{3} \times \frac{6}{7} =$

g. $\frac{3}{10} \times \frac{2}{3} =$

h. $\frac{5}{6} \times \frac{5}{8} =$

Multiplying a Mixed Number by a Fraction

Example: $\frac{1}{3} \times 4\frac{1}{2}$ $\quad 4\frac{1}{2} = \frac{(2 \times 4) + 1}{2} = \frac{9}{2}$ $\quad \frac{1}{3} \times \frac{9}{2} = \frac{9 \times 1}{3 \times 2} = \frac{9}{6} = 1\frac{3}{6} = 1\frac{1}{2}$

a. $\frac{1}{4} \times 3\frac{1}{3} =$

b. $\frac{2}{5} \times 1\frac{1}{2} =$

c. $\frac{1}{6} \times 2\frac{3}{5} =$

d. $\frac{3}{4} \times 3\frac{1}{3} =$

e. $\frac{1}{2} \times 7\frac{1}{3} =$

f. $\frac{5}{8} \times 4\frac{1}{5} =$

g. $\frac{1}{3} \times 2\frac{2}{9} =$

h. $\frac{1}{9} \times 6\frac{3}{4} =$

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Name _____ Date _____

Multiplying Fractions, More Practice

Write each fraction as a mixed number or as a whole number.

a. $\frac{7}{4}$ = _____ b. $\frac{9}{5}$ = _____ c. $\frac{12}{2}$ = _____ d. $\frac{19}{8}$ = _____

e. $\frac{14}{3}$ = _____ f. $\frac{49}{7}$ = _____ g. $\frac{25}{6}$ = _____ h. $\frac{29}{10}$ = _____

i. $\frac{34}{5}$ = _____ j. $\frac{53}{7}$ = _____ k. $\frac{40}{8}$ = _____ l. $\frac{17}{6}$ = _____

m. $\frac{24}{2}$ = _____ n. $\frac{16}{4}$ = _____ o. $\frac{121}{30}$ = _____ p. $\frac{639}{100}$ = _____

Write each mixed number as a fraction.

a. $6\frac{1}{4}$ = _____ b. $3\frac{4}{5}$ = _____ c. $8\frac{2}{9}$ = _____ d. $4\frac{3}{5}$ = _____

e. $6\frac{7}{8}$ = _____ f. $4\frac{7}{11}$ = _____ g. $2\frac{1}{5}$ = _____ h. $4\frac{3}{15}$ = _____

i. $5\frac{3}{5}$ = _____ j. $9\frac{8}{9}$ = _____ k. $7\frac{9}{10}$ = _____ l. $4\frac{8}{12}$ = _____

m. $2\frac{7}{60}$ = _____ n. $1\frac{1}{100}$ = _____ o. $3\frac{34}{50}$ = _____ p. $1\frac{63}{77}$ = _____

Solve the following problems.

a. Cheryl practices the high jump $\frac{2}{3}$ hour every day. How many hours does she practice in a week?

b. $\frac{4}{5}$ of the students on the track team are seniors. $\frac{1}{2}$ of the seniors are girls. What fraction of the team is senior girls?

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Name _____ Date _____

Multiplying Integers

The product of two like signs is positive.
positive × positive = positive
negative × negative = positive

The product of two unlike signs is negative.
positive × negative = negative
negative × positive = negative

Example: $\mathbf{7 \times 4 = 28}$ $\mathbf{7 \times {}^{-}4 = {}^{-}28}$

$\mathbf{{}^{-}7 \times {}^{-}4 = 28}$ $\mathbf{{}^{-}7 \times 4 = {}^{-}28}$

Multiply.

a. $20 \times {}^{-}2 =$ _____ b. ${}^{-}5 \times 30 =$ _____ c. $40 \times 10 =$ _____

d. $35 \times {}^{-}3 =$ _____ e. ${}^{-}22 \times {}^{-}4 =$ _____ f. ${}^{-}6 \times {}^{-}40 =$ _____

g. ${}^{-}12 \times 8 =$ _____ h. ${}^{-}20 \times {}^{-}40 =$ _____ i. ${}^{-}15 \times 6 =$ _____

j. $7 \times {}^{-}14 =$ _____ k. ${}^{-}13 \times {}^{-}13 =$ _____ l. $25 \times {}^{-}4 =$ _____

m. ${}^{-}31 \times 24 =$ _____ n. ${}^{-}63 \times 12 =$ _____ o. $50 \times 50 =$ _____

p. ${}^{-}16 \times {}^{-}22 =$ _____ q. $53 \times {}^{-}100 =$ _____ r. ${}^{-}86 \times {}^{-}20 =$ _____

s. $250 \times 100 =$ _____ t. $110 \times {}^{-}10 =$ _____ u. ${}^{-}110 \times {}^{-}10 =$ _____

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Name _____ Date _____

Division Facts

Practicing Basic Division Facts

a. 3 ÷ 1 = _____ b. 25 ÷ 5 = _____ c. 18 ÷ 6 = _____ d. 32 ÷ 4 = _____

e. 81 ÷ 9 = _____ f. 0 ÷ 5 = _____ g. 20 ÷ 5 = _____ h. 6 ÷ 3 = _____

i. 16 ÷ 8 = _____ j. 49 ÷ 7 = _____ k. 45 ÷ 9 = _____ l. 30 ÷ 6 = _____

m. 9 ÷ 3 = _____ n. 4 ÷ 1 = _____ o. 48 ÷ 8 = _____ p. 35 ÷ 5 = _____

q. 8 ÷ 4 = _____ r. 12 ÷ 4 = _____ s. 7 ÷ 1 = _____ t. 56 ÷ 8 = _____

More Practice with Basic Division Facts

a. 12 ÷ 6 = _____ b. 15 ÷ 5 = _____ c. 2 ÷ 2 = _____ d. 27 ÷ 9 = _____

e. 63 ÷ 9 = _____ f. 72 ÷ 9 = _____ g. 16 ÷ 4 = _____ h. 35 ÷ 7 = _____

i. 24 ÷ 6 = _____ j. 36 ÷ 6 = _____ k. 6 ÷ 1 = _____ l. 28 ÷ 7 = _____

m. 54 ÷ 9 = _____ n. 64 ÷ 8 = _____ o. 10 ÷ 5 = _____ p. 40 ÷ 8 = _____

q. 36 ÷ 9 = _____ r. 48 ÷ 6 = _____ s. 42 ÷ 7 = _____ t. 0 ÷ 8 = _____

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Name _____ Date _____

Dividing by Multiples of Ten

Dividing by Ten

Move the decimal point one place to the left.

Example: **600 ÷ 10** **600.** **600 ÷ 10 = 60**

Divide.

a. 325 ÷ 10 = _____ b. 176 ÷ 10 = _____ c. 452 ÷ 10 = _____

Dividing by One Hundred

Move the decimal point two places to the left.

Example: **32,000 ÷ 100** **32,000.** **32,000 ÷ 100 = 320**

Divide.

a. 46,500 ÷ 100 = _____ b. 173,000 ÷ 100 = _____ c. 200,000 ÷ 100 = _____

Summary of Multiplying and Dividing by Multiples of Ten

Power of Ten	Multiply	Divide
Example:		
10	**63 × 10 = 630**	**63 ÷ 10 = 6.3**
10	a. 252 × 10 = _____	b. 252 ÷ 10 = _____
100	c. 252 × 100 = _____	d. 252 ÷ 100 = _____
1,000	e. 252 × 1,000 = _____	f. 252 ÷ 1,000 = _____
10,000	g. 252 × 10,000 = _____	h. 252 ÷ 10,000 = _____
10	i. 47 × 10 = _____	j. 47 ÷ 10 = _____
100	k. 608 × 100 = _____	l. 608 ÷ 100 = _____
1,000	m. 175 × 1,000 = _____	n. 175 ÷ 1,000 = _____

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Name _____ Date _____

Dividing with Remainders

Example: Divide 213 ÷ 6

1. $\begin{array}{r} 3 \\ 6\overline{)213} \end{array}$

2. Multiply 3 × 6. Subtract 21 − 18. Difference must be less than divisor (6).

$$\begin{array}{r} 3 \\ 6\overline{)213} \\ \underline{-18} \\ 3 \end{array}$$

3. Bring down next digit.

$$\begin{array}{r} 3 \\ 6\overline{)213} \\ \underline{-18} \\ 33 \end{array}$$

4. Repeat Step 2.

$$\begin{array}{r} 35 \\ 6\overline{)213} \\ \underline{-18} \\ 33 \\ \underline{-30} \\ 3 \end{array}$$

5. Write remainder in the quotient.

213 ÷ 6 = 35 R3

Divide. Be sure your remainder is always less than the divisor.

a. $8\overline{)98}$ b. $6\overline{)91}$ c. $7\overline{)527}$

d. $6\overline{)428}$ e. $8\overline{)927}$ f. $4\overline{)329}$

g. $6\overline{)835}$ h. $3\overline{)518}$ i. $5\overline{)159}$

j. $8\overline{)339}$ k. $2\overline{)179}$ l. $7\overline{)445}$

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Name _____ Date _____

Dividing Greater Numbers

Example: **Divide 5,538 ÷ 13**

```
      426
13)5538
  −52
    33
   −26
     78
    −78
      0
```

Divide.

a. $24\overline{)5160}$ b. $62\overline{)8122}$ c. $71\overline{)23572}$

Dividing a Six-Digit Number by a Three-Digit Number

Example: **Divide 441,637 ÷ 727**

```
        607 R348
727)441637
   −4362
     5437
    −5089
      348
```

Divide.

a. $513\overline{)441637}$ b $476\overline{)152320}$ c. $245\overline{)105595}$

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Name _____ Date _____

Division and Estimation

Estimating

Example: Divide 3,763 ÷ 19
Round 19 to 20
Round 3,763 to 4,000

```
     200
20)4000
```

Find the exact quotient.

```
     198 R1
19)3763
  −19
   186
  −171
    153
   −152
      1
```

Round and Divide

Find Exact Quotient

a. 4,812 ÷ 23

b. 8,638 ÷ 48

c. 7,854 ÷ 14

d. 9,321 ÷ 56

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Name _____ Date _____

Dividing Fractions

Dividing a Fraction by a Fraction

Example: Divide $\frac{3}{4} \div \frac{1}{8}$ (dividend ÷ divisor)

$\frac{3}{4} \times \frac{8}{1} = \frac{24}{4}$ $24 \div 4 = 6$ $\frac{3}{4} \div \frac{1}{8} = 6$

Divide and simplify answer if necessary.

a. $\frac{2}{3} \div \frac{2}{3} =$

b. $\frac{6}{7} \div \frac{3}{14} =$

c. $\frac{4}{9} \div \frac{2}{3} =$

d. $\frac{9}{10} \div \frac{1}{3} =$

e. $\frac{7}{8} \div \frac{1}{4} =$

f. $\frac{1}{5} \div \frac{5}{8} =$

g. $\frac{3}{8} \div \frac{5}{9} =$

h. $\frac{4}{5} \div \frac{7}{10} =$

i. $\frac{3}{4} \div \frac{7}{8} =$

Dividing a Whole Number by a Fraction

Example: Divide $8 \div \frac{2}{3}$ $\frac{8}{1} \times \frac{3}{2} = \frac{24}{2} = 12$

a. $6 \div \frac{1}{4} =$

b. $7 \div \frac{3}{4} =$

c. $10 \div \frac{1}{3} =$

d. $15 \div \frac{5}{6} =$

e. $20 \div \frac{4}{9} =$

f. $12 \div \frac{6}{7} =$

g. $35 \div \frac{7}{8} =$

h. $18 \div \frac{9}{10} =$

i. $100 \div \frac{1}{2} =$

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Name _____ Date _____

Dividing Mixed Numbers

Example: Divide $22 \div 2\frac{3}{4}$

$2\frac{3}{4} = \frac{11}{4}$ $\qquad \frac{22}{1} \div \frac{11}{4}$ $\qquad \frac{\overset{2}{\cancel{22}}}{1} \times \frac{4}{\cancel{11}} = \frac{8}{1}$

Divide and simplify answer if necessary.

a. $2 \div 6\frac{1}{3} =$

b. $15 \div 2\frac{1}{2} =$

c. $4 \div 3\frac{1}{4} =$

d. $2\frac{2}{5} \div 18 =$

e. $4\frac{1}{6} \div 5 =$

f. $3 \div 1\frac{5}{6} =$

Dividing Two Mixed Numbers

Example: Divide $2\frac{1}{2} \div 1\frac{1}{4}$

$\frac{5}{2} \div \frac{5}{4}$ $\qquad \frac{5}{2} \times \frac{4}{5}$ $\qquad \frac{\overset{1}{\cancel{5}}}{\underset{1}{\cancel{2}}} \times \frac{\overset{2}{\cancel{4}}}{\underset{1}{\cancel{5}}} = \frac{2}{1} = 2$

a. $12\frac{1}{4} \div 1\frac{3}{4} =$

b. $13\frac{1}{2} \div 2\frac{1}{4} =$

c. $2\frac{2}{7} \div 1\frac{1}{3} =$

d. $2\frac{2}{5} \div 3\frac{1}{5} =$

e. $3\frac{1}{3} \div 4\frac{1}{2} =$

f. $3\frac{1}{2} \div 3\frac{1}{2} =$

g. $2\frac{1}{3} \div 2\frac{4}{5} =$

h. $6\frac{4}{5} \div 6\frac{1}{2} =$

i. $10\frac{3}{4} \div 3\frac{1}{4} =$

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Name _____ Date _____

Dividing Time

Minutes to Hours

Example: **Since there are 60 minutes in an hour, divide by 60 when changing minutes to hours.** **125 minutes = ? hours**
125 ÷ 60 = 2 hours 5 minutes

Change these minutes to hours.

a. 300 minutes =

b. 245 minutes =

c. 810 minutes =

d. 190 minutes =

e. 6,000 minutes =

f. 100 minutes =

g. 840 minutes =

h. 540 minutes =

i. 900 minutes =

Months to Years

Example: **Since there are 12 months in a year, divide by 12 when changing months to years.** **156 months = ? years**
156 ÷ 12 = 13 years

Change these months to years.

a. 24 months =

b. 62 months =

c. 100 months =

d. 144 months =

e. 120 months =

f. 245 months =

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Name _____ Date _____

Dividing Decimals

Dividing a Decimal by a Whole Number

Example: Divide 1.4 ÷ 7

$$\begin{array}{r} . \\ 7\overline{)1.4} \end{array} \qquad \begin{array}{r} 0. \\ 7\overline{)1.4} \end{array} \qquad \begin{array}{r} 0.2 \\ 7\overline{)1.4} \end{array} \qquad \begin{array}{r} 0.2 \\ 7\overline{)1.4} \\ -\ 1\ 4 \\ \hline 0 \end{array}$$

a. $6\overline{)4.2}$ b. $4\overline{)65.2}$ c. $8\overline{)9.36}$

d. $4\overline{)69.32}$ e. $8\overline{)103.2}$ f. $7\overline{)157.15}$

Dividing a Whole Number by a Decimal

Example: 30 ÷ 0.6 $0.6\overline{)30.}$ $\begin{array}{r} 50 \\ 6\overline{)300} \end{array}$

a. $1.5\overline{)75}$ b. $0.8\overline{)326}$ c. $0.2\overline{)161}$

d. $2.7\overline{)324}$ e. $1.4\overline{)532}$ f. $0.16\overline{)2232}$

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Name _____ Date _____

Dividing Money

Example:

$$\begin{array}{r} \$0.34 \\ 12\overline{)\$4.08} \\ -\,3\,6 \\ \hline 48 \\ -\,48 \\ \hline 0 \end{array}$$

Divide. Be sure to place the dollar sign and decimal point in your answer, the quotient.

a. $6\overline{)\$2.40}$

b. $50\overline{)\$13.50}$

c. $19\overline{)\$19.38}$

d. $6\overline{)\$5.04}$

e. $2\overline{)\$27.48}$

f. $4\overline{)\$13.56}$

g. $18\overline{)\$77.76}$

h. $24\overline{)\$61.92}$

i. $12\overline{)\$4.68}$

j. $9\overline{)\$7.29}$

k. $61\overline{)\$75.03}$

l. $14\overline{)\$18.48}$

m. $31\overline{)\$26.04}$

n. $3\overline{)\$12.75}$

o. $48\overline{)\$31.68}$

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Name _____ Date _____

Dividing Integers

1. If you multiply or divide two integers with the same sign, the answer will be positive.

   $6 \div 2 = 3$ $\quad$ $6 \times 2 = 12$
   $^{-}6 \div {}^{-}2 = 3$ $\quad$ $^{-}6 \times {}^{-}2 = 12$

2. If you multiply or divide two integers with unlike signs, the answer will be negative.

   $^{-}6 \div 2 = {}^{-}3$ $\quad$ $^{-}6 \times 2 = {}^{-}12$
   $6 \div {}^{-}2 = {}^{-}3$ $\quad$ $6 \times {}^{-}2 = {}^{-}12$

Divide.

a. $^{-}3 \div {}^{-}3 =$ _____ b. $63 \div 7 =$ _____ c. $^{-}10 \div 5 =$ _____

d. $^{-}3 \div 3 =$ _____ e. $96 \div {}^{-}12 =$ _____ f. $81 \div {}^{-}9 =$ _____

g. $54 \div {}^{-}9 =$ _____ h. $20 \div {}^{-}4 =$ _____ i. $^{-}760 \div 10 =$ _____

j. $50 \div 10 =$ _____ k. $^{-}50 \div {}^{-}10 =$ _____ l. $18 \div {}^{-}6 =$ _____

m. $36 \div 6 =$ _____ n. $^{-}36 \div {}^{-}6 =$ _____ o. $^{-}63 \div 9 =$ _____

p. $^{-}30 \div {}^{-}10 =$ _____ q. $^{-}28 \div 7 =$ _____ r. $^{-}42 \div {}^{-}7 =$ _____

s. $^{-}28 \div 2 =$ _____ t. $100 \div {}^{-}5 =$ _____ u. $^{-}56 \div 8 =$ _____

v. $45 \div {}^{-}3 =$ _____ w. $^{-}80 \div {}^{-}2 =$ _____ x. $^{-}24 \div {}^{-}8 =$ _____

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Multiplication and Division Answers

Multiplication Facts and Repeated Addition, page 2

a. **2 × 6 = 12**; b. **4 × 7 = 28**; c. **3 × 4 = 12**; d. **5 × 8 = 40**; e. **3 × 2 = 6**; f. **4 × 3 = 12**
a. **3**; b. **25**; c. **49**; d. **0**; e. **15**; f. **36**; g. **45**; h. **16**; i. **8**; j. **56**; k. **16**; l. **63**; m. **6**; n. **2**; o. **28**; p. **64**; q. **20**; r. **40**; s. **30**; t. **54**; u. **12**; v. **72**; w. **42**; x. **0**; y. **18**; z. **35**; aa. **9**; bb. **12**; cc. **24**; dd. **0**; ee. **36**; ff. **48**

Multiplying by Multiples of Ten, page 3

multiples of 10: a. **720**; b. **270**; c. **240**; d. **170**; e. **250**; f. **160**
multiples of 100: a. **600**; b. **7,200**; c. **3,000**; d. **5,600**; e. **4,200**; f. **3,600**
multiples of 1000: a. **28,000**; b. **24,000**; c. **20,000**; d. **54,000**; e. **48,000**; f. **9,000**
multiples of 10,000: a. **140,000**; b. **320,000**; c. **350,000**; d. **360,000**; e. **400,000**; f. **630,000**

Multiplying with Regrouping, page 4

multiply: a. **7,389**; b. **2,919**; c. **2,863**; d. **1,340**; e. **1,398**
partial products: a. **1,272**; b. **576**; c. **1,296**; d. **870**

Multiplying Greater Numbers, page 5

multiply: a. **3,861**; b. **14,586**; c. **33,712**; d. **5,181**; e. **18,172**; f. **8,908**; g. **32,235**; h. **23,809**
numbers that have zeros: a. **651,560**; b. **486,210**; c. **93,840**; d. **177,250**; e. **109,344**; f. **66,204**; g. **457,314**; h. **145,350**

Multiplication and Estimation, page 6

rounding to the nearest tens: a. **80**; b. **10**; c. **50**; d. **60**; e. **30**; f. **30**; g. **80**; h. **60**
rounding to the nearest hundreds: a. **100**; b. **100**; c. **200**; d. **100**
exact answer vs. estimated answer: a. **840, 700, 847**; b. **360, 400, 368**; c. **700, 1,000, 660**; d. **1,280, 1,600, 1,240**; e. **720, 600, 714**; f. **950, 1,000, 930**

Multiplying Time, page 7

changing weeks to hours: a. **1,008 hours**; b. **8,736 hours**
changing weeks to minutes: c. **40,320 minutes**; d. **100,800 minutes**
changing years to months: a. **192 months**; b. **300 months**

Multiplying Decimals, page 8

by a whole number: a. **108.8**; b. **10.88**; c. **52.2**; d. **693.6**; e. **388.5**; f. **14.82**; g. **31.14**; h. **2.005**
by a decimal: a. **0.215**; b. **0.0567**; c. **1.02**; d. **0.00072**; e. **0.1628**; f. **0.2736**; g. **0.0027**; h. **0.0462**

Multiplying Money, page 9

a. **$21.42**; b. **$122.96**; c. **$134.58**; d. **$846.18**
a. **$2.51**; b. **$3.26**; c. **$5.70**; d. **$2.25**

Multiplying Fractions, page 10

a. **2**; b. **2** $\frac{1}{2}$; c. **2**; d. **3**

a. $\frac{3}{8}$; b. $\frac{3}{20}$; c. $\frac{49}{100}$; d. $\frac{1}{6}$; e. $\frac{2}{5}$; f. $\frac{2}{7}$; g. $\frac{1}{5}$; h. $\frac{25}{48}$

a. $\frac{5}{6}$; b. $\frac{3}{5}$; c. $\frac{13}{30}$; d. **2** $\frac{1}{2}$; e. **3** $\frac{2}{3}$; f. **2** $\frac{5}{8}$; g. $\frac{20}{27}$; h. $\frac{3}{4}$

Multiplying Fractions, More Practice, page 11

a. **1** $\frac{3}{4}$; b. **1** $\frac{4}{5}$; c. **6**; d. **2** $\frac{3}{8}$; e. **4** $\frac{2}{3}$; f. **7**; g. **4** $\frac{1}{6}$; h. **2** $\frac{9}{10}$; i. **6** $\frac{4}{5}$; j. **7** $\frac{4}{7}$; k. **5**;

l. **2** $\frac{5}{6}$; m. **12**; n. **4**; o. **4** $\frac{1}{30}$; p. **6** $\frac{39}{100}$

a. $\frac{25}{4}$; b. $\frac{19}{5}$; c. $\frac{74}{9}$; d. $\frac{23}{5}$; e. $\frac{55}{8}$; f. $\frac{51}{11}$; g. $\frac{11}{5}$; h. $\frac{63}{15}$; i. $\frac{28}{5}$; j. $\frac{89}{9}$; k. $\frac{79}{10}$; l. $\frac{56}{12}$;

m. $\frac{127}{60}$; n. $\frac{101}{100}$; o. $\frac{184}{50}$; p. $\frac{140}{77}$

a. **4** $\frac{2}{3}$ **hours**; b. $\frac{2}{5}$

Multiplying Integers, page 12

a. **⁻40**; b. **⁻150**; c. **400**; d. **⁻105**; e. **88**; f. **240**; g. **⁻96**; h. **800**; i. **⁻90**; j. **⁻98**; k. **169**;
l. **⁻100**; m. **⁻744**; n. **⁻756**; o. **2,500**; p. **352**; q. **⁻5,300**; r. **1,720**; s. **25,000**; t. **⁻1,100**;
u. **1,100**

Division Facts, page 13

a. **3**; b. **5**; c. **3**; d. **8**; e. **9**; f. **0**; g. **4**; h. **2**; i. **2**; j. **7**; k. **5**; l. **5**; m. **3**; n. **4**; o. **6**; p. **7**; q. **2**;
r. **3**; s. **7**; t. **7**
a. **2**; b. **3**; c. **1**; d. **3**; e. **7**; f. **8**; g. **4**; h. **5**; i. **4**; j. **6**; k. **6**; l. **4**; m. **6**; n. **8**; o. **2**; p. **5**; q. **4**;
r. **8**; s. **6**; t. **0**

Dividing by Multiples of Ten, page 14

a. **32.5**; b. **17.6**; c. **45.2**
by one hundred: a. **465**; b. **1,730**; c. **2,000**
summary: a. **2,520**; b. **25.2**; c. **25,200**; d. **2.52**; e. **252,000**; f. **0.252**; g. **2,520,000**;
h. **0.0252**; i. **470**; j. **4.7**; k. **60,800**; l. **6.08**; m. **175,000**; n. **0.175**

Dividing with Remainders, page 15

a. **12 R2**; b. **15 R1**; c. **75 R2**; d. **71 R2**; e. **115 R7**; f. **82 R1**; g. **139 R1**; h. **172 R2**; i. **31 R4**;
j. **42 R3**; k. **89 R1**; l. **63 R4**

Dividing Greater Numbers, page 16

a. **215**; b. **131**; c. **332**
a. **860 R457**; b. **320**; c. **431**

Division and Estimation, page 17

a. **5,000 ÷ 20 = 250, 209 R5**; b. **9,000 ÷ 50 = 180, 179 R46**; c. **8,000 ÷ 10 = 800, 561**; d. **9,000 ÷ 60 = 150, 166 R25**

Dividing Fractions, page 18

fraction by fraction: a. **1**; b. **4**; c. $\mathbf{\frac{2}{3}}$; d. $\mathbf{2\ \frac{7}{10}}$; e. $\mathbf{3\ \frac{1}{2}}$; f. $\mathbf{\frac{8}{25}}$; g. $\mathbf{\frac{27}{40}}$; h. $\mathbf{1\ \frac{1}{7}}$; i. $\mathbf{\frac{6}{7}}$

whole number by fraction: a. **24**; b. $\mathbf{9\ \frac{1}{3}}$; c. **30**; d. **18**; e. **45**; f. **14**; g. **40**; h. **20**; i. **200**

Dividing Mixed Numbers, page 19

mixed numbers: a. $\mathbf{\frac{6}{19}}$; b. **6**; c. $\mathbf{1\ \frac{3}{13}}$; d. $\mathbf{\frac{2}{15}}$; e. $\mathbf{\frac{5}{6}}$; f. $\mathbf{1\ \frac{7}{11}}$

two mixed numbers: a. **7**; b. **6**; c. $\mathbf{1\ \frac{5}{7}}$; d. $\mathbf{\frac{3}{4}}$; e. $\mathbf{\frac{20}{27}}$; f. **1**; g. $\mathbf{\frac{5}{6}}$; h. $\mathbf{1\ \frac{3}{65}}$; i. $\mathbf{3\ \frac{4}{13}}$

Dividing Time, page 20

minutes to hours: a. **5 hours**; b. **4 hours, 5 minutes**; c. **13 hours, 30 minutes**; d. **3 hours, 10 minutes**; e. **100 hours**; f. **1 hour, 40 minutes**; g. **14 hours**; h. **9 hours**; i. **15 hours**
months to years: a. **2 years**; b. **5 years, 2 months**; c. **8 years, 4 months**; d. **12 years**; e. **10 years**; f. **20 years, 5 months**

Dividing Decimals, page 21

dividing decimal by whole number: a. **0.7**; b. **16.3**; c. **1.17**; d. **17.33**; e. **12.9**; f. **22.45**
dividing whole number by decimal: a. **50**; b. **407 R4**; c. **805**; d. **120**; e. **380**; f. **13,950**

Dividing Money, page 22

a. **$0.40**; b. **$0.27**; c. **$1.02**; d. **$0.84**; e. **$13.74**; f. **$3.39**; g. **$4.32**; h. **$2.58**; i. **$0.39**; j. **$0.81**; k. **$1.23**; l. **$1.32**; m. **$0.84**; n. **$4.25**; o. **$0.66**

Dividing Integers, page 23

a. **1**; b. **9**; c. **⁻2**; d. **⁻1**; e. **⁻8**; f. **⁻9**; g. **⁻6**; h. **⁻5**; i. **⁻76**; j. **5**; k. **5**; l. **⁻3**; m. **6**; n. **6**; o. **⁻7**; p. **3**; q. **⁻4**; r. **6**; s. **⁻14**; t. **⁻20**; u. **⁻7**; v. **⁻15**; w. **40**; x. **3**