

CHAPTER
3

Whole Number Multiplication and Division

Worksheet 1 Multiplying by a 1-Digit Number

Complete the multiplication by ones. Then regroup into tens and ones if possible.

Example

$$3 \text{ ones} \times 3 = \underline{9} \text{ ones}$$

1. $4 \text{ ones} \times 2 = \underline{\hspace{2cm}} \text{ ones}$

2. $7 \text{ ones} \times 4 = 28 \text{ ones}$

$$= \underline{\hspace{2cm}} \text{ tens } \underline{\hspace{2cm}} \text{ ones}$$

3. $8 \text{ ones} \times 6 = \underline{\hspace{2cm}} \text{ ones}$

$$= \underline{\hspace{2cm}} \text{ tens } \underline{\hspace{2cm}} \text{ ones}$$

Complete the multiplication by tens. Then regroup into hundreds and tens.

Example

$$7 \text{ tens} \times 4 = \underline{28} \text{ tens}$$

$$= \underline{2} \text{ hundreds } \underline{8} \text{ tens}$$

4. $4 \text{ tens} \times 5 = \underline{\hspace{2cm}} \text{ tens}$

$$= \underline{\hspace{2cm}} \text{ hundreds}$$

5. $6 \text{ tens} \times 7 = \underline{\hspace{2cm}} \text{ tens}$

$$= \underline{\hspace{2cm}} \text{ hundreds } \underline{\hspace{2cm}} \text{ tens}$$

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Complete the multiplication by hundreds. Then regroup into thousands and hundreds.

Example

$$2 \text{ hundreds} \times 9 = 18 \text{ hundreds}$$

$$= \underline{1} \text{ thousand } \underline{8} \text{ hundreds}$$

6. $3 \text{ hundreds} \times 6 = \underline{\hspace{2cm}} \text{ hundreds}$

$$= \underline{\hspace{2cm}} \text{ thousand } \underline{\hspace{2cm}} \text{ hundreds}$$

7. $7 \text{ hundreds} \times 4 = \underline{\hspace{2cm}} \text{ hundreds}$

$$= \underline{\hspace{2cm}} \text{ thousands } \underline{\hspace{2cm}} \text{ hundreds}$$

8. $8 \text{ hundreds} \times 6 = \underline{\hspace{2cm}} \text{ hundreds}$

$$= \underline{\hspace{2cm}} \text{ thousands } \underline{\hspace{2cm}} \text{ hundreds}$$

9. $5 \text{ hundreds} \times 8 = \underline{\hspace{2cm}} \text{ hundreds}$

$$= \underline{\hspace{2cm}} \text{ thousands}$$

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Multiply and find the missing numbers.*Example*

$3,821 \times 4 = ?$

Step 1

Multiply 1 one by 4.

$1 \text{ one} \times 4 = \underline{4} \text{ ones}$

	3			
	3,	8	2	1
×				4
1	5,	2	8	4

Step 2

Multiply 2 tens by 4.

$2 \text{ tens} \times 4 = \underline{8} \text{ tens}$

Step 3

Multiply 8 hundreds by 4.

$8 \text{ hundreds} \times 4 = \underline{32} \text{ hundreds}$

$= \underline{3} \text{ thousands } \underline{2} \text{ hundreds}$

Step 4

Multiply 3 thousands by 4.

$3 \text{ thousands} \times 4 = \underline{12} \text{ thousands}$

Add the thousands.

$\underline{12} \text{ thousands} + 3 \text{ thousands} = \underline{15} \text{ thousands}$

$\text{So, } 3,821 \times 4 = \underline{15,284}.$

Name: _____

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10. $5,632 \times 3$

Step 1

$2 \text{ ones} \times 3 = \underline{\hspace{2cm}} \text{ ones}$

Step 2

$3 \text{ tens} \times 3 = \underline{\hspace{2cm}} \text{ tens}$

Step 3

$6 \text{ hundreds} \times 3$

$= \underline{\hspace{2cm}} \text{ hundreds}$

$= 1 \text{ thousand } \underline{\hspace{2cm}} \text{ hundreds}$

Step 4

$5 \text{ thousands} \times 3 = 15 \text{ thousands}$

Add the thousands.

$15 \text{ thousands} + 1 \text{ thousand} = \underline{\hspace{2cm}} \text{ thousands}$

So, $5,632 \times 3 = \underline{\hspace{2cm}}$.

$$\begin{array}{r} \textcircled{1} \\ 5, \quad 6 \quad 3 \quad 2 \\ \times \quad \quad \quad \quad 3 \\ \hline \square \square, \square \square \square \end{array}$$

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11. $5,819 \times 5$

$$\begin{array}{r} \square \quad \quad \quad \square 4 \\ 5, \quad 8 \quad 1 \quad 9 \\ \times \\ \hline \square 2 \quad \square 9, \quad \square \quad \square \quad \square \\ \hline \end{array}$$

Step 1

$$9 \text{ ones} \times 5 = 45 \text{ ones}$$

$$= 4 \text{ tens} \text{ _____ ones}$$

Step 2

$$1 \text{ ten} \times 5 = \text{ _____ tens}$$

Add the tens.

$$\text{ _____ tens} + 4 \text{ tens} = \text{ _____ tens}$$

Step 3

$$8 \text{ hundreds} \times 5$$

$$= 40 \text{ hundreds} = \text{ _____ thousands}$$

Step 4

$$5 \text{ thousands} \times 5 = \text{ _____ thousands}$$

Add the thousands.

$$\text{ _____ thousands} + \text{ _____ thousands} = 29 \text{ thousands}$$

$$\text{So, } 5,819 \times 5 = \text{ _____}.$$

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12. $8,720 \times 4$

Step 1

0 ones $\times 4 =$ _____ ones

Step 2

2 tens $\times 4 =$ _____ tens

Step 3

7 hundreds $\times 4$

$=$ _____ hundreds $=$ _____ thousands _____ hundreds

Step 4

8 thousands $\times 4 =$ _____ thousands

Add the thousands.

_____ thousands $+$ _____ thousands $=$ _____ thousands

So, $8,720 \times 4 =$ _____.

$$\begin{array}{r} \square \\ 8,720 \\ \times \quad 4 \\ \hline \square\square\square\square\square \end{array}$$

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13. $6,509 \times 6$

	□		□	
	6,	5	0	9
×				6

Step 1

$9 \text{ ones} \times 6$

$=$ _____ ones

$=$ _____ tens _____ ones

Step 2

$0 \text{ tens} \times 6 =$ _____ tens

Add the tens.

_____ tens + _____ tens = _____ tens

Step 3

$5 \text{ hundreds} \times 6$

$=$ _____ hundreds

$=$ _____ thousands

Step 4

$6 \text{ thousands} \times 6 =$ _____ thousands

Add the thousands.

_____ thousands + _____ thousands = _____ thousands

So, $6,509 \times 6 =$ _____.

Name: _____

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14. $4,768 \times 7$

Step 1

$8 \text{ ones} \times 7 = \underline{\hspace{2cm}} \text{ ones}$

$= \underline{\hspace{2cm}} \text{ tens } \underline{\hspace{2cm}} \text{ ones}$

Step 2

$6 \text{ tens} \times 7 = \underline{\hspace{2cm}} \text{ tens}$

Add the tens.

$\underline{\hspace{2cm}} \text{ tens} + \underline{\hspace{2cm}} \text{ tens}$

$= \underline{\hspace{2cm}} \text{ tens}$

$= \underline{\hspace{2cm}} \text{ hundreds } \underline{\hspace{2cm}} \text{ tens}$

Step 3

$7 \text{ hundreds} \times 7 = \underline{\hspace{2cm}} \text{ hundreds}$

Add the hundreds.

$\underline{\hspace{2cm}} \text{ hundreds} + 4 \text{ hundreds}$

$= \underline{\hspace{2cm}} \text{ hundreds}$

$= \underline{\hspace{2cm}} \text{ thousands } \underline{\hspace{2cm}} \text{ hundreds}$

Step 4

$4 \text{ thousands} \times 7 = \underline{\hspace{2cm}} \text{ thousands}$

Add the thousands.

$\underline{\hspace{2cm}} \text{ thousands} + \underline{\hspace{2cm}} \text{ thousands} = \underline{\hspace{2cm}} \text{ thousands}$

So, $4,768 \times 7 = \underline{\hspace{2cm}}$.

<input type="text"/>	<input type="text" value="4"/>	<input type="text"/>		
4,	7	6	8	
×				7
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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Multiply.

15. $7,643 \times 2$

$$\begin{array}{r} \square \\ 7,643 \\ \times 2 \\ \hline \square\square\square,\square\square\square \end{array}$$

16. $6,923 \times 8$

$$\begin{array}{r} \square \quad \square \quad \square \\ 6,923 \\ \times 8 \\ \hline \square\square\square,\square\square\square \end{array}$$

Multiply using the place value of each digit.

Example

$$\begin{array}{r} 8,153 \\ \times 4 \\ \hline 32,000 \end{array} \rightarrow \begin{array}{l} 3 \times 4 = \underline{12} \\ 50 \times 4 = \underline{200} \\ 100 \times 4 = \underline{400} \\ 8,000 \times 4 = \underline{32,000} \end{array}$$

17.

$$\begin{array}{r} 5,347 \\ \times 3 \\ \hline \square\square\square,\square\square\square \end{array} \rightarrow \begin{array}{l} 7 \times 3 = \underline{\hspace{2cm}} \\ 40 \times 3 = \underline{\hspace{2cm}} \\ 300 \times 3 = \underline{\hspace{2cm}} \\ 5,000 \times 3 = \underline{\hspace{2cm}} \end{array}$$

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18.

×	4,	8	3	5	
				7	
					→ 5 × 7 = _____
					→ 30 × 7 = _____
					→ 800 × 7 = _____
					→ 4,000 × 7 = _____

Multiply.

Example

		2	2	
	2,	1	3	4
×				7
1	4	9	3	8

19.

	7	0	0	
			8	
×				

20.

	9	2	8	
			4	
×				

21.

	4,	7	2	6	
				3	
×					

22.

	9,	2	1	0	
				6	
×					

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Worksheet 2 Multiplying by a 2-Digit Number

Write the missing numbers.

Example

$$70 = \underline{7} \text{ tens}$$

$$9 \text{ tens} = \underline{90}$$

1. $120 = \underline{\hspace{2cm}} \text{ tens}$

2. $23 \text{ tens} = \underline{\hspace{2cm}}$

3. $800 = \underline{\hspace{2cm}} \text{ hundreds}$

4. $6 \text{ hundreds} = \underline{\hspace{2cm}}$

5. $2,100 = \underline{\hspace{2cm}} \text{ hundreds}$

6. $15 \text{ hundreds} = \underline{\hspace{2cm}}$

Multiply by tens.

Example

$$4 \times 90 = ?$$

$$4 \times 90 = 4 \times \underline{9} \text{ tens}$$

$$= \underline{36} \text{ tens}$$

$$= \underline{360}$$

7. $6 \times 80 = 6 \times \underline{\hspace{1cm}} \text{ tens}$

$$= \underline{\hspace{1cm}} \text{ tens}$$

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

8. $16 \times 30 = 16 \times \underline{\hspace{1cm}} \text{ tens}$

$$= \underline{\hspace{1cm}} \text{ tens}$$

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

9. $21 \times 5 \text{ tens} = \underline{\hspace{1cm}} \text{ tens} = \underline{\hspace{1cm}}$

10. $34 \times 6 \text{ tens} = \underline{\hspace{1cm}} \text{ tens} = \underline{\hspace{1cm}}$

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Multiply by hundreds.

Example

$$6 \times 4 \text{ hundreds} = \underline{24} \text{ hundreds} = \underline{2,400}$$

11. $5 \times 5 \text{ hundreds} = \underline{\hspace{2cm}} \text{ hundreds} = \underline{\hspace{2cm}}$

12. $11 \times 300 = 11 \times \underline{\hspace{2cm}} \text{ hundreds}$
 $= \underline{\hspace{2cm}} \text{ hundreds}$
 $= \underline{\hspace{2cm}}$

Write the missing numbers.

Example

$$\begin{aligned} 75 \times 20 &= 75 \times \underline{2} \times 10 \\ &= \underline{150} \times 10 \\ &= \underline{1,500} \end{aligned}$$

13. $6 \times 70 = 6 \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} \times 10$
 $= \underline{\hspace{2cm}}$

14. $74 \times 90 = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

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Find each product.

Example

$$12 \times 400 = ?$$

Method 1

$$12 \times 400 = 12 \times \underline{4} \times 100$$

$$= \underline{48} \times 100$$

$$= \underline{4,800}$$

Method 2

$$12 \times 400 = 12 \times \underline{100} \times 4$$

$$= \underline{1,200} \times 4$$

$$= \underline{4,800}$$

15. $42 \times 200 = \underline{\hspace{2cm}} \times 100 \times \underline{\hspace{2cm}}$

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

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

16. $973 \times 300 = \underline{\hspace{2cm}} \times 3 \times \underline{\hspace{2cm}}$

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

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

Find each product.

Example

$34 \times 55 = ?$

Step 1

Multiply 3 tens 4 ones by 5.

$4 \text{ ones} \times 5 = 20 \text{ ones} = 2 \text{ tens}$

$3 \text{ tens} \times 5 = 15 \text{ tens}$

$2 \text{ tens} + 15 \text{ tens} = 17 \text{ tens}$

Part of the product: $34 \times 5 = 170$

$$\begin{array}{r} ^2 \\ 34 \\ \times 55 \\ \hline 170 \end{array}$$

Step 2

Multiply 3 tens 4 ones by 50.

$4 \text{ ones} \times 50 = 200 \text{ ones} = 2 \text{ hundreds}$

$3 \text{ tens} \times 50 = 150 \text{ tens} = 15 \text{ hundreds}$

$2 \text{ hundreds} + 15 \text{ hundreds} = 17 \text{ hundreds}$

Part of the product: $34 \times 50 = 1,700$

$$\begin{array}{r} ^2 \\ 34 \\ \times 55 \\ \hline 170 \\ 1,700 \end{array}$$

Step 3

Add the two parts of the product.

$170 + 1,700 = 1,870$

$$\begin{array}{r} ^2 \\ 34 \\ \times 55 \\ \hline 170 \\ 1,700 \\ \hline 1,870 \end{array}$$

17.

$$\begin{array}{r} ^2 \\ 92 \\ \times 43 \\ \hline \square\square\square \\ \square\square\square\square \\ \hline \square\square\square\square \end{array}$$

18.

$$\begin{array}{r} ^2 \\ 36 \\ \times 57 \\ \hline \square\square\square \\ \square\square\square\square \\ \hline \square\square\square\square \end{array}$$

Example

$172 \times 23 = ?$

Step 1

Multiply 172 by 3.
 $172 \times 3 = 516$

Step 2

Multiply 172 by 20.
 $172 \times 20 = 3,440$

Step 3

Add the two parts of the product.
 $516 + 3,440 = 3,956$

So, $172 \times 23 = \underline{3,956}$.

$$\begin{array}{r} ^2 \\ 172 \\ \times 23 \\ \hline 516 \end{array}$$

$$\begin{array}{r} ^1 \\ ^2 \\ 172 \\ \times 23 \\ \hline 516 \\ 3,440 \end{array}$$

$$\begin{array}{r} ^1 \\ ^2 \\ 172 \\ \times 23 \\ \hline 516 \\ 3,440 \\ \hline 3,956 \end{array}$$

19.

$$\begin{array}{r} ^2 ^4 ^0 \\ \times ^3 ^3 \\ \hline \\ \\ \hline \end{array}$$

20.

$$\begin{array}{r} ^5 ^0 ^8 \\ \times ^6 ^9 \\ \hline \\ \\ \hline \end{array}$$

21.

$$\begin{array}{r} ^9 ^0 ^0 \\ \times ^8 ^1 \\ \hline \\ \\ \hline \end{array}$$

22.

$$\begin{array}{r} ^6 ^3 ^7 \\ \times ^7 ^5 \\ \hline \\ \\ \hline \end{array}$$

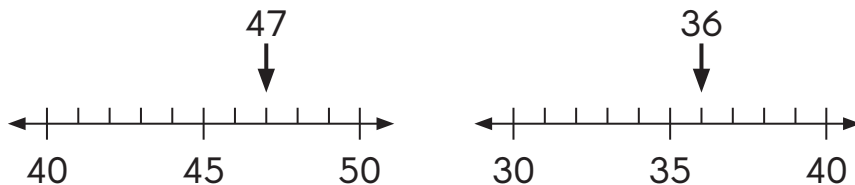
Name: _____

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Use the number lines to round. Estimate each product.

Example

Estimate 47×36 .



47 is closer to 50 than 40. 36 is closer to 40 than 30.

$$\underline{50} \times \underline{40} = \underline{2,000}$$

47×36 is about 2,000.



23. Estimate 68×52 .

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

68×52 is about _____.



24. Estimate 42×73 .

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

42×73 is about _____.

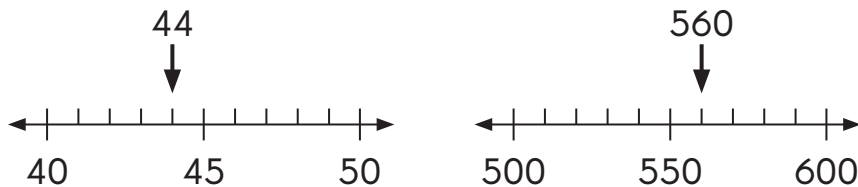
Name: _____

Date: _____

Use the number lines to round. Estimate each product.

Example

Estimate 44×560 .



44 is closer to 40 than 50.

560 is closer to 600 than 500.

$$\underline{40} \times \underline{600} = \underline{24,000}$$

44×560 is about 24,000.



25. Estimate 239×77 .

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

239×77 is about _____.



26. Estimate 984×36 .

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

984×36 is about _____.

Name: _____

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Multiply. Then estimate to check whether your answer is reasonable.

Example

$$38 \times 94 = ?$$

$$\begin{array}{r} 7 \\ 3 \\ 38 \\ \times 94 \\ \hline 152 \\ 3,420 \\ \hline 3,572 \end{array}$$

38 is closer to 40 than to 30.

94 is closer to 90 than to 100.



$$38 \times 94 \text{ is about } \underline{40} \times \underline{90} \\ = \underline{3,600}$$

3,572 is close to 3,600. So, the answer is reasonable.

27. $58 \times 27 =$ _____

Estimate: _____ \times _____ = _____

Is the answer reasonable? Explain.

	5	8
×	2	7

28. $63 \times 75 =$ _____

Estimate: _____ \times _____ = _____

Is the answer reasonable? Explain.

	6	3
×	7	5

Name: _____

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Multiply. Then estimate to check whether your answer is reasonable.

Example

$26 \times 246 = ?$

$$\begin{array}{r}
 ^1 \\
 ^2 ^3 \\
 246 \\
 \times 26 \\
 \hline
 1,476 \\
 4,920 \\
 \hline
 6,396
 \end{array}$$

26 is closer to 30 than to 20.
 246 is closer to 200 than to 300.



26×246 is about $\underline{30} \times \underline{200}$
 $= \underline{6,000}$

6,396 is close to 6,000. So, the answer is reasonable.

29. $137 \times 34 = \underline{\hspace{2cm}}$

$$\begin{array}{r}
 ^1 ^3 ^7 \\
 \times ^3 ^4 \\
 \hline
 \\
 , \\
 \hline
 ,
 \end{array}$$

Estimate: _____ \times _____ = _____

The answer is _____.

30. $760 \times 83 = \underline{\hspace{2cm}}$

$$\begin{array}{r}
 ^7 ^6 ^0 \\
 \times ^8 ^3 \\
 \hline
 \\
 , \\
 \hline
 ,
 \end{array}$$

Estimate: _____ \times _____ = _____

The answer is _____.

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31. $822 \times 97 =$ _____

		8	2	2	
	×		9	7	
		,			
		,			

Estimate: _____ \times _____ = _____

The answer is _____.

32. $485 \times 79 =$ _____

		4	8	5	
	×		7	9	
		,			
		,			

Estimate: _____ \times _____ = _____

The answer is _____.

Worksheet 3 Modeling Division with Regrouping

Complete the division steps.

Example

$$468 \div 3 = ?$$

$$\begin{array}{r} 1 \\ 3 \overline{)468} \\ \underline{300} \\ 1 \end{array}$$

Step 1

Divide the hundreds by 3.

4 hundreds \div 3 = 1 hundred with 1 hundred left over

$$\begin{array}{r} 1 \\ 3 \overline{)468} \\ \underline{300} \\ 168 \end{array}$$

Regroup the hundreds.

1 hundred = 10 tens

Add the tens.

10 tens + 6 tens = 16 tens

$$\begin{array}{r} 15 \\ 3 \overline{)468} \\ \underline{300} \\ 168 \\ \underline{150} \\ 18 \end{array}$$

Step 2

Divide the tens by 3.

16 tens \div 3 = 5 tens with 1 ten left over

Regroup the tens.

1 ten = 10 ones

Add the ones.

10 ones + 8 ones = 18 ones

$$\begin{array}{r} 156 \\ 3 \overline{)468} \\ \underline{300} \\ 168 \\ \underline{150} \\ 18 \\ \underline{18} \\ 0 \end{array}$$

Step 3

Divide the ones by 3.

18 ones \div 3 = 6 ones

So, $468 \div 3 = \underline{156}$.

Name: _____

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1. $580 \div 5$

1		
5	8	0
0		

Step 1

$5 \text{ hundreds} \div 5 = \underline{\quad 1 \quad} \text{ hundred}$

Step 2

$\underline{\quad\quad\quad} \text{ tens} \div 5$
 $= \underline{\quad\quad\quad} \text{ ten with } \underline{\quad\quad\quad} \text{ tens left over}$

Regroup the tens.

$\underline{\quad\quad\quad} \text{ tens} = \underline{\quad\quad\quad} \text{ ones}$

Step 3

$\underline{\quad\quad\quad} \text{ ones} \div 5 = \underline{\quad\quad\quad} \text{ ones}$

2. $968 \div 4$

4	9	6
	8	
0		

Step 1

$9 \text{ hundreds} \div 4$
 $= \underline{\quad\quad\quad} \text{ hundreds with } \underline{\quad\quad\quad} \text{ hundred left over}$

Regroup the hundred.

$\underline{\quad\quad\quad} \text{ hundred} = \underline{\quad\quad\quad} \text{ tens}$

Add the tens.

$\underline{\quad\quad\quad} \text{ tens} + 6 \text{ tens} = \underline{\quad\quad\quad} \text{ tens}$

Step 2

$\underline{\quad\quad\quad} \text{ tens} \div 4 = \underline{\quad\quad\quad} \text{ tens}$

Step 3

$8 \text{ ones} \div 4 = \underline{\quad\quad\quad} \text{ ones}$

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3. $858 \div 6$

Step 1

$$\begin{array}{r} \square \\ 6 \overline{) 858} \\ \square \square \square \\ \hline \square \end{array}$$

Step 2

$$\begin{array}{r} \square \\ 6 \overline{) 858} \\ \square \square \square \\ \hline \square \square \square \end{array}$$

Step 3

$$\begin{array}{r} \square \square \\ 6 \overline{) 858} \\ \square \square \square \\ \hline \square \square \square \\ \hline \square \end{array}$$

Step 4

$$\begin{array}{r} \square \square \\ 6 \overline{) 858} \\ \square \square \square \\ \hline \square \square \square \\ \hline \square \square \end{array}$$

Step 5

$$\begin{array}{r} \square \square \square \\ 6 \overline{) 858} \\ \square \square \square \\ \hline \square \square \square \\ \hline \square \square \\ \hline \square \square \\ \hline \square \end{array}$$

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Divide. Write the missing numbers.

Example

$$276 \div 3 = ?$$

$$\begin{array}{r} \overline{) 276} \\ \underline{270} \\ 6 \\ \underline{6} \\ 0 \end{array}$$

4. $765 \div 9$

$$\begin{array}{r} \overline{) 765} \\ \underline{ } \\ \\ \underline{ } \\ \end{array}$$

5. $472 \div 8$

$$\begin{array}{r} \overline{) 472} \\ \underline{ } \\ \\ \underline{ } \\ \end{array}$$

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6. $903 \div 7$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	
7)	9	0	3
		<input type="text"/>	<input type="text"/>	<input type="text"/>
		<hr/>		
		<input type="text"/>	<input type="text"/>	<input type="text"/>
		<input type="text"/>	<input type="text"/>	<input type="text"/>
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		<input type="text"/>	<input type="text"/>	
		<input type="text"/>	<input type="text"/>	
		<hr/>		
			<input type="text"/>	

7. $695 \div 5$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	
5)	6	9	5
		<input type="text"/>	<input type="text"/>	<input type="text"/>
		<hr/>		
		<input type="text"/>	<input type="text"/>	<input type="text"/>
		<input type="text"/>	<input type="text"/>	<input type="text"/>
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		<input type="text"/>	<input type="text"/>	
		<input type="text"/>	<input type="text"/>	
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			<input type="text"/>	

8. $578 \div 2$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2)	5	7	8
		<input type="text"/>	<input type="text"/>	<input type="text"/>
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		<input type="text"/>	<input type="text"/>	<input type="text"/>
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		<input type="text"/>	<input type="text"/>	
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			<input type="text"/>	

9. $867 \div 3$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	
3)	8	6	7
		<input type="text"/>	<input type="text"/>	<input type="text"/>
		<hr/>		
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			<input type="text"/>	

Name: _____

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10. $984 \div 6$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	
6)	9	8	4
		<input type="text"/>	<input type="text"/>	<input type="text"/>
		<hr/>		
		<input type="text"/>	<input type="text"/>	<input type="text"/>
		<input type="text"/>	<input type="text"/>	<input type="text"/>
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			<input type="text"/>	<input type="text"/>
			<input type="text"/>	<input type="text"/>
			<hr/>	
				<input type="text"/>

11. $672 \div 4$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	
4)	6	7	2
		<input type="text"/>	<input type="text"/>	<input type="text"/>
		<hr/>		
		<input type="text"/>	<input type="text"/>	<input type="text"/>
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				<input type="text"/>

Worksheet 4 Dividing by a 1-Digit Number

Find each quotient.

Example

$$3,852 \div 3 = ?$$

Step 1

Divide 3 thousands by 3.
3 thousands \div 3 = 1 thousand
= 1,000

$$\begin{array}{r} 1 \\ 3 \overline{) 3,852} \\ \underline{3,000} \end{array}$$

Step 2

Divide 8 hundreds by 3.
8 hundreds \div 3
= 2 hundreds with 2 hundreds left over
= 200 with 20 tens left over

$$\begin{array}{r} 1, 2 \\ 3 \overline{) 3,852} \\ \underline{3,000} \\ 852 \\ \underline{600} \\ 252 \\ \underline{200} \end{array}$$

Step 3

Divide 25 tens by 3.
25 tens \div 3
= 8 tens with 1 ten left over
= 80 with 10 ones left over

$$\begin{array}{r} 1, 2 8 \\ 3 \overline{) 3,852} \\ \underline{3,000} \\ 852 \\ \underline{600} \\ 252 \\ \underline{240} \\ 12 \end{array}$$

Step 4

Divide 12 ones by 3.
12 ones \div 3 = 4 ones

$$\text{So, } 3,852 \div 3 = \underline{1,284}.$$

$$\begin{array}{r} 1, 2 8 4 \\ 3 \overline{) 3,852} \\ \underline{3,000} \\ 852 \\ \underline{600} \\ 252 \\ \underline{240} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

A **quotient** is the answer to a division problem.

No remainder.

Name: _____

Date: _____

1. $4,692 \div 4$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	,			
4)	4,	6	9	2
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	
	<input type="text"/>	<input type="text"/>		
	<input type="text"/>	<input type="text"/>		
	<input type="text"/>			

2. $7,326 \div 9$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	,			
9)	7,	3	2	6
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	
			<input type="text"/>	<input type="text"/>
			<input type="text"/>	<input type="text"/>
			<input type="text"/>	<input type="text"/>
			<input type="text"/>	

Find each quotient and remainder.

Example

$8,162 \div 6 = ?$

$$\begin{array}{r} 1 \\ 6 \overline{) 8,162} \\ \underline{6,000} \\ 2 \end{array}$$

$1,000 \times 6 = 6,000$

$$\begin{array}{r} 13 \\ 6 \overline{) 8,162} \\ \underline{6,000} \\ 2,162 \\ \underline{1,800} \\ 362 \end{array}$$

$300 \times 6 = 1,800$

quotient

$$\begin{array}{r} 1,360 \\ 6 \overline{) 8,162} \\ \underline{6,000} \\ 2,162 \\ \underline{1,800} \\ 362 \\ \underline{360} \\ 2 \end{array}$$

remainder

$60 \times 6 = 300$

$8,162 \div 6 = \underline{1,360 R 2}$

3. $5,687 \div 9$

$$\begin{array}{r} \square\square\square\square R \square \\ 9 \overline{) 5,687} \\ \underline{\square,\square\square\square} \\ \square\square\square\square \\ \underline{\square\square\square\square} \\ \square\square\square \\ \underline{\square\square\square} \\ \square\square \\ \underline{\square\square} \\ \square \end{array}$$

4. $9,395 \div 7$

$$\begin{array}{r} \square,\square\square\square\square R \square \\ 7 \overline{) 9,395} \\ \underline{\square,\square\square\square} \\ \square\square\square\square \\ \underline{\square\square\square\square} \\ \square\square\square\square \\ \underline{\square\square\square\square} \\ \square\square\square \\ \underline{\square\square\square} \\ \square\square\square \\ \underline{\square\square\square} \\ \square \end{array}$$

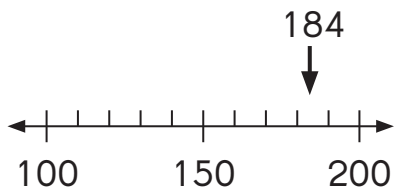
Name: _____

Date: _____

Estimate each quotient using related multiplication facts.

Example

$$184 \div 5 = ?$$



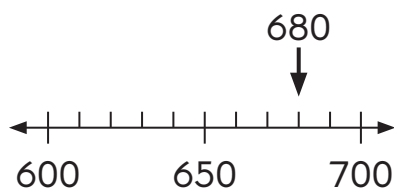
Related multiplication facts:

$$30 \times 5 = 150 \quad 40 \times 5 = 200$$

184 is closer to 200 than to 150.

So, $184 \div 5$ is about $200 \div 5 = \underline{40}$.

5. $680 \div 6$



$$110 \times 6 = \underline{\hspace{2cm}} \quad 120 \times 6 = \underline{\hspace{2cm}}$$

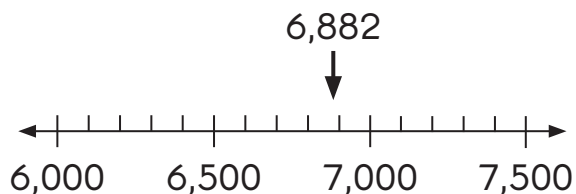
680 is closer to _____ than to _____.

So, $680 \div 6$ is about _____ $\div 6 =$ _____.

Name: _____

Date: _____

6. $6,882 \div 8$



_____ \times _____ = _____ _____ \times _____
= _____

6,882 is closer to _____ than to _____.

So, $6,882 \div 8$ is about _____ $\div 8 =$ _____.

Divide. Then estimate to check whether your answer is reasonable.

Example

$4,156 \div 6 = ?$

$$\begin{array}{r} 692 \text{ R } 4 \\ 6 \overline{)4,156} \\ \underline{3,600} \\ 556 \\ \underline{540} \\ 16 \\ \underline{12} \\ 4 \end{array}$$

Estimate:

4,200 $\div 6 =$ 700

$4,156 \div 6$ is about 700, so

the answer is reasonable.

$4,156 \div 6 =$ 692 R 4

Name: _____

Date: _____

7. $7,369 \div 5$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	R	<input type="text"/>
5)	7,	3	6	9		
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
		<input type="text"/>	<input type="text"/>	<input type="text"/>		
		<input type="text"/>	<input type="text"/>	<input type="text"/>		
			<input type="text"/>	<input type="text"/>		
			<input type="text"/>	<input type="text"/>		
				<input type="text"/>		

Estimate:

_____ \div 5 = _____

$7,369 \div 5$ is about _____, so

the answer is _____.

8. $6,750 \div 8$

	<input type="text"/>	<input type="text"/>	<input type="text"/>	R	<input type="text"/>	
8)	6,	7	5	0		
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
		<input type="text"/>	<input type="text"/>	<input type="text"/>		
		<input type="text"/>	<input type="text"/>	<input type="text"/>		
			<input type="text"/>	<input type="text"/>		
			<input type="text"/>	<input type="text"/>		
				<input type="text"/>		

Estimate:

_____ \div 8 = _____

$6,750 \div 8$ is about _____, so

the answer is _____.

Name: _____

Date: _____

Worksheet 5 Real-World Problems: Multiplication and Division

Solve. Show your work.

Example

Mr. Jack pays \$785 a month to rent an apartment.
Ms. Jill pays \$1,075 a month to rent an apartment.
How much rent do they pay in 12 months?

Step 1 $\$785 + \$1,075 = \$1,860$

Step 2 $12 \times \$1,860 = \$22,320$

They pay \$22,320 in 12 months.

1. Amos packs 298 boxes of pears each day.
Kim packs 509 boxes each day.
How many boxes of pears do they pack in 21 days?

Step 1

How many boxes of pears do they pack each day?

_____ + _____ = _____

Step 2

How many boxes of pears do they pack in 21 days?

_____ \times 21 = _____

They pack _____ boxes of pears in 21 days.

Name: _____

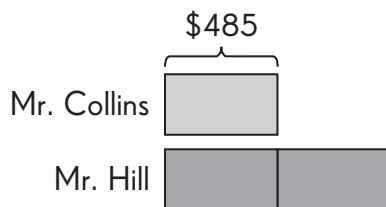
Date: _____

Solve each problem using models.

Example

Mr. Collins saves \$485 a month.
Mr. Hill saves twice as much as Mr. Collins.
How much do they save in 12 months?

Step 1 How much does Mr. Hill save?



Mr. Hill saves $\$485 \times 2 = \underline{\$970}$ a month.

Step 2 How much do they save in a month?

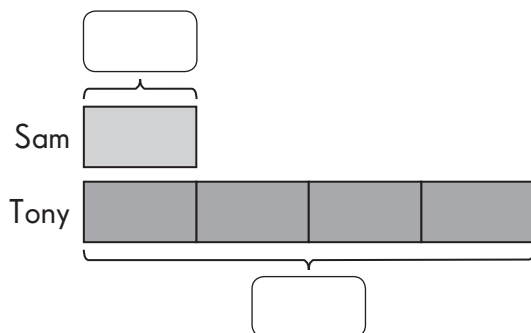
$$\$485 + \underline{\$970} = \underline{\$1,455}$$

Step 3 How much do they save in 12 months?

$$\$1,455 \times 12 = \underline{\$17,460}$$

2. Sam has 215 marbles. Tony has 4 times as many marbles as Sam.

Complete the model. Write the missing numbers.



Name: _____

Date: _____

- a.** How many marbles does Tony have?

1 unit \rightarrow _____

4 units \rightarrow _____ $\times 4 =$ _____

Tony has _____ marbles.

- b.** Tony packs the marbles into boxes of 9 marbles each. How many full boxes does he have?

_____ $\div 9 =$ _____ R _____

He has _____ full boxes.

- c.** How many marbles are not packed in a full box?

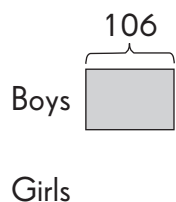
_____ marbles are not packed in a full box.

Name: _____

Date: _____

- 3.** A school has 106 boys. There are 12 more girls than boys in the school.

Complete the model to show the number of girls.



- a.** How many students are there in the school?

There are _____ students in the school.

- b.** The school puts the children equally into 8 classes.
How many students are there in each class?

There are _____ students in each class.

Name: _____

Date: _____

4. Mr. Roberts has \$782 to buy one computer and 2 mobile phones. A computer costs twice as much as one mobile phone. He needs \$418 more to buy all the items.

Complete the model. Write the missing numbers.



- a. What is the total cost of all the items?

The total cost of all the items is _____.

- b. How much does the computer cost?

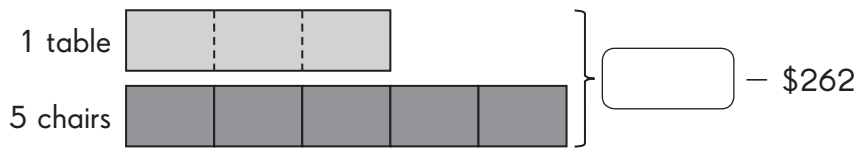
The computer costs _____.

Name: _____

Date: _____

- 5.** Ms. Leslie has \$2,750 to spend on a table and 5 chairs. The table costs 3 times as much as one chair. After buying all the items she has \$262 left.

Complete the model. Write the missing numbers.



- a.** What is the total cost of all the items?

The total cost is _____.

- b.** What is the cost of the 5 chairs?

The 5 chairs cost _____.