Welcome to HCA's **Summer Math** Review!

Inside this file, you will find pages and pages of math review worksheets. These were selected to help your student review the math concepts from their recently completed grade level. Many of these worksheets are from the Math in Focus's Reteach workbook. The "Contents" pages show the chapters that are included, the concepts the worksheet is reviewing, and gives a check-box to mark when the worksheet (which includes several pages) is completed. At the end of some of the chapters you will find a fun math page for your student to enjoy.

If review of the concept is needed, you can access the *Math in Focus* (MIF) textbook online. Simply go to the Heritage Christian website, www.heritagechristian.info, and select the menu "Academics," then select "Elementary," then select "Math In Focus," then select "Online Access." Upon arriving there, you will find instructions for how to access the online text, and be able to select the grade level you need. If you need a User Name and the Password email Stacy Loyd at sloyd@heritagechristian.info. MIF texts are divided into two books, A and B, which cover the entire year. Choose the appropriate volume for the chapter that you need.

If you are looking for online games for your child that help develop logical thinking skills (which are crucial to succeeding in mathematics), here are a few ideas:

a. BigSeed by Mind Research Institute

This FREE iPad application develops problem solving and spatial reasoning skills. JiJi the Penguin helps you fold colored tiles to fill in the available empty spaces. JiJi walks you through the levels, lets you know when you are wrong, and cheers you on as you progress through the levels. An added bonus, there are no words to read, so the instructions are given visually (and very effectively, I might add). So even a young math learner can enjoy this game!

b. KickBox by Mind Research Institute

Another FREE iPad application that helps develop multi-step thinking skills. Join JiJi the Penguin this time as you position lasers and mirrors to remove balls that block the penguin's path. You are

encouraged as you move through the levels and again, there are no words to read for instructions.

c. Sudoku Puzzles

There are many online Sudoku sites, some with printable puzzles, and books aplenty that feature this addicting game. Sudoku develops logical thinking and promotes multi-step thinking with it's easy-to-understand puzzle format. The puzzle features 9 grids, each grid composed of a 3x3 square. Within each square, the digits 1 to 9 are arranged with no repeats. But within each column and row of the entire puzzle, the digits 1 to 9 are also arranged with no repeats. Try the ones labeled "easy" first (make sure you use a pencil!), and see if your student does not become an avid fan of this engaging puzzle.

d. MasterMind (online)

If you don't have Apple technology, you can play MasterMind online via this website:

http://www.kidsmathgamesonline.com/logic/mastermind.html

Simply drag the colored balls into the 4 spots and try to find out the color sequence that the computer has chosen. With each attempt the computer will let you know using black (right color, wrong place) or white (right color, right place) pegs if your attempt was close. Be aware there are a lot of ads on this site which can be misleading.

e. Tower of Hanoi (online)

Another game that doesn't need Apple technology, you can play Tower of Hanoi via this website:

http://www.kidsmathgamesonline.com/logic/towersofhanoi.html

The goal of this game is to move one pile of blocks from one peg to another, making sure you follow only 2 rules: you can only move one block at a time, and you can't put a larger block on top of a smaller one. You can vary the number of blocks you can work with. Simple game idea, but if you get up to 7 blocks, it gets very tough.

Hopefully, as your student accomplishes these worksheets and has some fun with these games, may they come to realize that math is more than learning about numbers, it is about learning how to think. May your summer be full of great memories and fun learning! Please have your student bring completed math work to school in the fall for recognition from her or her new teacher!

See you in the fall,

Joleen Steffen
Faculty Math Coach
Heritage Christian Academy

Grade 5 Summer Math Contents

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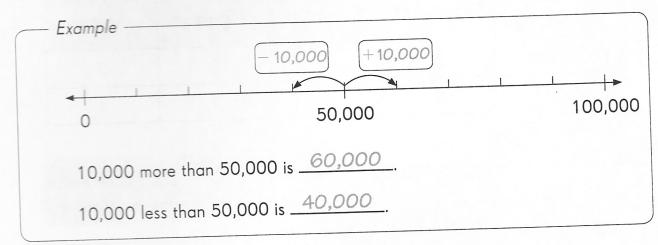
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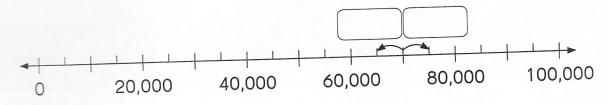
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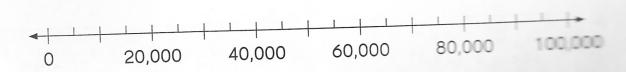
Worksheet 2 Comparing Numbers to 100,000

Use the number line to count on or count back.
Write the missing numbers.





- **1.** 5,000 more than 70,000 is _____
- 2. 5,000 less than 70,000 is _____



- 3. 10,000 more than 35,000 is _____
- **4.** 10,000 less than 45,000 is _____

Compare the numbers in the place-value chart. Then write < or >.

Example

Ten Thousands	Thousands	Hundreds	Tens	Ones
9	5	0	0	2
9	2	1	7	4

95,002



92,174

> means greater than.

< means less than.

5.

Ten Thousands	Thousands	Hundreds	Tens	Ones
4	5	7	8	2
4	5	3	2	6

45,782



45,326

6.

Ten Thousands	Thousands	Hundreds	Tens	Ones
7	3	1	3	4
7	3	1	8	4

73,134



73,184

Look at the numbers in the place-value chart. Then order the numbers from least to greatest.

Example -

Ten Thousands	Thousands	Hundreds	Tens	Ones
8	5	4	1	2
8	6	4	3	5
8	9	0	1	2

85,412 86,435 89,012

Compare the value of each digit from left to right. The digits in the ten thousands place are the same. Next compare the digits in the thousands place.



7.

Ten Thousands	Thousands	Hundreds	Tens	Ones
. 3	7	4	8	2
5	2	1	0	4
5	8	3	6	9

Name: _____

Date: _____

Write the missing numbers.

Example -----

1,000 more than 97,136 is ________.

31,072 is <u>50,000</u> less than 81,072.

- **8.** 10,000 more than 69,780 is _____.
- **9.** 56,500 is ______ less than 60,500.
- **10.** 1,000 less than 96,325 is _____.
- **11.** _____ is 30,000 more than 10,400.

Complete the number patterns. Then write the rule for each pattern.

Example —

43,200 45,200 47,200 49,200 51,200

Rule: Add 2,000.

12. 67,700 62,700 57,700 _____

Rule: _____

13. 52,378 55,478 _____ 61,678 ____

Rule: _____

14. _____ 17,320 17,200 ____ 16,960

Rule: _____



Estimation and Number Theory

Worksheet 1 Estimation

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

$$475 + 382 = ?$$

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

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

The estimated sum is ______900___.

Is your answer reasonable? _____Yes___

1. Find 534 + 208.

Number	Rounded to the nearest 100
534	grabanes enpiner'i lerr
208	
Add	

The estimated sum is _____.

Is your answer reasonable? _____

2. Find 836 - 487.

Number	Rounded to the nearest 100
836	
487	
Subtract	

The estimated difference is ______.

Is your answer reasonable? _____

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

Example -

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

$$1,398 + 4,687 = 6,085$$

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

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



Is your answer reasonable? _____Yes___

3. Find 4,772 + 2,409.

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

Is your answer reasonable? _____

Find 14,842 - 9,221. 4.

Number	Rounded to the nearest 1,000
14,842	van est as OME
9,221	
Subtract	

Is your answer reasonable? _____

Estimate each sum or difference using front-end estimation.

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

The leading digit of 7,389 is 7.

The leading digit of 7,389 is 7.

The leading digit of 2,543 is 2.



3,351 + 1,4695.

6. 9,217 - 2,881

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

Example
$$=$$
 478 + 403 = $=$ 881

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

Estimated difference: _____ = ____

Explain: _____

Estimated sum: _____ + ___ = ____

Explain: _____

Estimated difference: _____ = ____

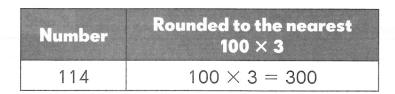
Explain: _____

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

Example —

$$114 \times 3 = 342$$

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



Is the answer reasonable? ____Yes___



Number	Rounded to the nearest 100×3
,	-

Is the answer reasonable? _____

11. 267 × 2 = _____

Number	Rounded to the nearest 100×2

Is the answer reasonable? _____

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

Example —

The estimated product is _________.

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

12. 54 × 4 = _____

Estimated product: \times 4 = \times

Explain: _____

13. $112 \times 3 =$ _____

Estimated product: \times 3 = \dots

Explain: _____

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

6 0 0

2 1

Example -

$$741 \div 3$$

$$3 \times 240 = 720$$

$$3 \times 250 = 750$$

Estimated quotient:

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

The answer is <u>reasonable</u>

Multiplication is the opposite of division.



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

Estimated quotient: $\pm 4 =$

The answer is ______

15.
$$516 \div 2 =$$

Estimated quotient: _____ ÷ ____ = ____

The answer is ______.

16. 780 ÷ 5 = _____

_____× ____ = ____

_____ × ____ = ____

Estimated quotient: ____ ÷ ___ = ____

The answer is _____.

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

Example

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

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

2,896 meters of barbed wire is needed.

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



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

Worksheet 2 Factors

Write the missing numbers.

- Example -----

_______ can be divided exactly by ______14___ and _____3____.

1. 21 × 5 = _____

_____ can be divided exactly by 21 and _____.

2. 35 × 3 = _____

_____ can be divided exactly by ____ and ____.

Write the missing numbers.

- Example -----

_____36 ___ is a product of 12 and 3.

12 and 3 are factors of ______36____.

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

3. 8 × 12 = _____

_____ is a product of 8 and 12.

_____ and ____ are factors of _____.

4. 26 × 4 = _____

_____ is a product of 26 and 4.

_____ and ____ are factors of _____.

Find the quotient. Then write the missing words.

Example -

Can 12 be divided exactly

Is 4 a factor of 12? Yes

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



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

5. 14 ÷ 5 = _____

Can 14 be divided exactly by 5?

Is 5 a factor of 14? _____

6. 18 ÷ 6 = _____

Can 18 be divided exactly by 6? _____

Is 6 a factor of 18? _____

7. 28 ÷ 7 = _____

Can 28 be divided exactly by 7? _____

Is 7 a factor of 28? _____

Find the factors of each number.

Example -

$$8 = 1 \times 8$$
$$= 2 \times 4$$

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

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



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

The factors of 24 are _____, ____, ____, ____,

_____, _____, and _____.

The factors of 54 are _____, ____, ____, ____,

_____, ____, and _____.

10. 72 = _____ × ____

The factors of 72 are _____, ____, ____, ____,

_____, ____, and ____.

11. 108 = ____×___

The factors of 108 are _____, ____, ____, ____, ____,

_____, ____, and _____.

Divide. Then answer each question.

Example ---

$$15 \div 2 = 7R1$$

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

Is 2 a common factor of 15 and 16? No



Is 3 a common factor of 48 and 52?

13.
$$70 \div 5 =$$

Is 5 a common factor of 70 and 95? _____

Is 8 a common factor of 45 and 96?

Name:	Date:	
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Find the factors of each pair of numbers. Then circle the common factors.

Example —

12 and 21

12: (1, 2, 3, 4, 6, 12

21: (1, 3, 7, 21

Which of the circled common factors is the greatest? ______3

15. 21 and 28

21:_____

28·

Which of the circled common factors is greatest? _____

16. 32 and 42

32:

12:

Which of the circled common factors is the greatest?

17. 48 and 72

48:

42.

Which of the circled common factors is the greatest?

Find the greatest common factor of each pair of numbers.

Example -

16 and 24

Step 1 Divide 16 and 24 by a common factor.

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

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

2 and 3 have no common factor other than 1.

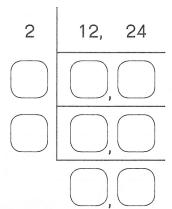


Step 3 Multiply the common factors.

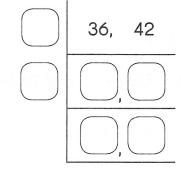
$$2 \times 2 \times 2 = 8$$

The greatest common factor is 8.

18. 12 and 24



19. 36 and 42



____ × ___ = ___

The greatest common factor is _____. The greatest common factor is _____.

20. 54 and 72

21. 15 and 42

Answer the questions using these numbers.



Example -

Which of the numbers have 2 as a factor?

10, 24, 36, and 54

- **22.** Which of the numbers have 3 as a factor?
- **23.** Which of the numbers have 5 as a factor?
- **24.** Which of the numbers have 3 and 5 as factors?

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

$$17 = 1 \times 17$$

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

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

25. 5

26. 9

27. 11

28. 26

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

Example -

$$6 = 1 \times 6$$
$$= 2 \times 3$$

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

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

29. 20

30. 13

31. 63

32. 41

Which numbers in Exercises 29 to 32 are prime numbers?

- 33. The prime numbers are _____ and _____
- **34.** Why did you choose those two numbers? Explain your reasoning.

Worksheet 3 Multiples

Find the first eight multiples of each number.

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



Example -

$$1 \times 4 = 4$$

$$2 \times 4 = 8$$

$$1 \times 4 = 4$$
 $2 \times 4 = 8$ $3 \times 4 = 12$ $4 \times 4 = 16$

$$4 \times 4 = 16$$

$$5 \times 4 = 20$$

$$6 \times 4 = 24$$

$$7 \times 4 = 28$$

$$6 \times 4 = 24$$
 $7 \times 4 = 28$ $8 \times 4 = 32$

The first eight multiples of 4 are _____4 _____ 8 _____12

16 , 20 , 24 , 28 , and 32

1. 6

$$1 \times 6 = \bigcirc$$

$$1 \times 6 =$$
 $2 \times 6 =$ $3 \times 6 =$ $4 \times 6 =$

$$5 \times 6 = \bigcirc$$

$$7 \times 6 = \bigcirc$$

The first eight multiples of 6 are _____

2. 8

$$1 \times 8 = \bigcirc$$

$$1 \times 8 =$$
 $2 \times 8 =$ $3 \times 8 =$

$$3 \times 8 = \bigcirc$$

$$5 \times 8 = \bigcirc$$

The first eight multiples of 8 are _____

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

Example -

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

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



- 12, 15, 18, 21, 23 3.
- 5, 15, 25, 51, 55 4.
- 5. 7, 17, 21, 27, 35, 42, 56, 63
- 18, 36, 39, 45, 47, 49, 54, 63, 72, 79

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

Example -

Is 14 a multiple of 2?

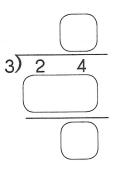
Use division to determine whether a number is a multiple of another number.



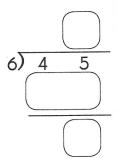
Yes, 14 is the _____ multiple of 2.

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

7. Is 24 a multiple of 3?



- Yes, 24 is the _____ multiple of 3.
- No, 24 is not a multiple of 3. It cannot be divided exactly by 3.
- **8.** Is 45 a multiple of 6?



- Yes, 45 is the _____ multiple of 6.
- No, 45 is not a multiple of 6. It cannot be divided exactly by 6.
- 9. Is 96 a multiple of 8?
 - Yes, 96 is the _____ multiple of 8.
 - No, 96 is not a multiple of 8. It cannot be divided exactly by 8.

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

Example -

- 3: 3, 6, 9, 12, 15, 18, 21, 24, 27
- 4: 4, 8, (12), 16, 20, (24), 28, 32, 36

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

The common multiples are _____ and ____ 24____

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

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

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

The common multiple is _____.

The least common multiple is ______.

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

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

The common multiples are _____ and _____.

The least common multiple is ______.

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

Example -

3 and 7

- 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42
- 7: 7, 14,(21), 28, 35,(42), 49

The least common multiple is ______21

12. 2 and 5

2:_____

5: _____

The least common multiple is _____.

13. 6 and 9

6: _____

9: _____

The least common multiple is _____.

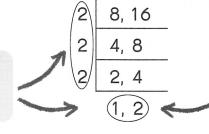
Find the least common multiple of each pair of numbers using division.

Example

8 and 16

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

There are five factors.



1 and 2 have no common factor other than 1.

Step 2 Multiply the factors.

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

16 is the least common multiple of 8 and 16.

14. 9 and 18

15. 14 and 28

16. 15 and 45

17. 12 and 52

Worksheet 2 Multiplying by a 2-Digit Number

Write the missing numbers.

Multiply by tens.

- Example
$$4 \times 90 = ?$$

$$4 \times 90 = 4 \times 9$$
 tens
$$= 36$$
 tens

= 360

7.
$$6 \times 80 = 6 \times$$
 tens tens $=$ tens $=$ tens $=$ tens

10.
$$34 \times 6 \text{ tens} = \underline{\qquad} \text{tens} = \underline{\qquad}$$

Name: _____

Date: _____

Multiply by hundreds.

- 11. 5×5 hundreds = _____ hundreds = _____
- 12. 11 × 300 = 11 × _____ hundreds
 = ____ hundreds
 = ____

Write the missing numbers.

Example $75 \times 20 = 75 \times \underline{2} \times 10$ $= \underline{150} \times 10$ $= \underline{1,500}$

- 13. 6 × 70 = 6 × _____ × ____ = ____ × 10 =
- 14. 74 × 90 = _____ × ____ × ____ = ___ × ____ = ___ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ____ = ____ × ___ × ____ = ____ × ____ = ____ × ____ = ____ × ____ × ____ = ____ × ____ = ____ × ____ × ____ = ____ × ____ × ____ = ____ × ___ × ____ × ____ × ___ × ____ × __ × ___ × __ × ___ × __ × ___ × __ × __ × ___ × __ × ___ × __ ×

Find each product.

- Example —

$$12 \times 400 = ?$$

Method 1

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

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

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

Method 2

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

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

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

Find each product.

Example —

$$34 \times 55 = ?$$

Step 1			2	
Step 1			3	4
Multiply 3 tens 4 ones by 5.		×	5	5
4 ones \times 5 = 20 ones = 2 tens 3 tens \times 5 = 15 tens	1		7	0

2 tens
$$+$$
 15 tens $=$ 17 tens
Part of the product: $34 \times 5 = 170$

Step 2			3	4
Multiply 3 tens 4 ones by 50.	\times		5	5
4 ones \times 50 = 200 ones = 2 hundreds		1	7	0
$3 \text{ tens} \times 50 = 150 \text{ tens} = 15 \text{ hundreds}$	1,	7	0	0
2 hundreds + 15 hundreds = 17 hundreds				

2 hundreds + 15 hundreds = 17 hundreds		2	
Part of the product: $34 \times 50 = 1,700$		3	4
Step 3	\times	5	5
Add the two parts of the product		17	0

Add the two parts of the product.
$$170 + 1,700 = 1,870$$
 $1,700 = 1,870$

17.

18.

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, $172 \times 23 = 3,956$.

172

× 2 **3**

1 7 2

× **2** 3

3.440

1 7 2

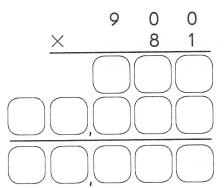
× 2 3 5 1 6

3 4 4 0

19.

 20.

21.

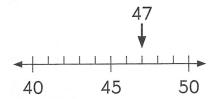


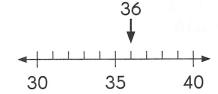
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Use the number lines to round. Estimate each product.

Example ----

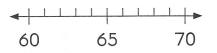
Estimate 47×36 .

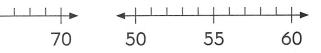




47 is closer to 50 than 40. 36 is closer to 40 than 30.

 47×36 is about 2,000.



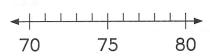


Estimate 68×52 . 23.

_____ × ____ = ____

 68×52 is about _____.





Estimate 42×73 . 24.

_____ × ____ = ____

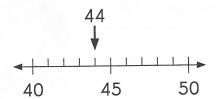
 42×73 is about _____.

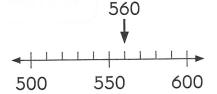
54 Chapter 3 Lesson 3.2

Use the number lines to round. Estimate each product.

Example ----

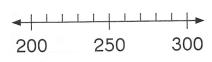
Estimate 44×560 .

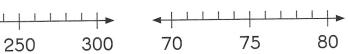




44 is closer to 40 than 50. 560 is closer to 600 than 500.

 44×560 is about 24,000.

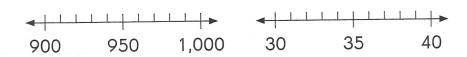




Estimate 239×77 . 25.

× ____ = ___

 239×77 is about _____.



Estimate 984×36 . 26.

_____ × ____ = ____

 984×36 is about _____.

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

Example -

$$38 \times 94 = ?$$

 $\begin{array}{c} & & & & 7 \\ & & & 3 & 8 \\ \times & & 9 & 4 \\ \hline & 1 & 5 & 2 \\ 3, & 4 & 2 & 0 \\ \hline 3, & 5 & 7 & 2 \end{array}$

38 is closer to 40 than to 30.

94 is closer to 90 than to 100.

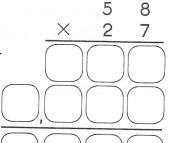


38 × 94 is about <u>40</u> × <u>90</u>

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

Estimate: ____ × ___ = ___

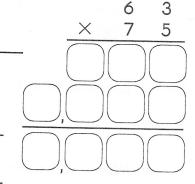
Is the answer reasonable? Explain.



28. 63 × 75 = _____

Estimate: ____ = ___

Is the answer reasonable? Explain.



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

Example —

$$26 \times 246 = ?$$

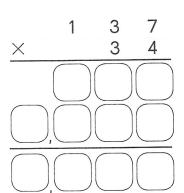
26 is closer to 30 than to 20.

246 is closer to 200 than to 300.



6,396 is close to 6,000. So, the answer is <u>reasonable</u>

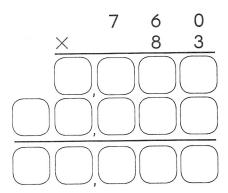




Estimate: _____ × ____ = ____

The answer is _____

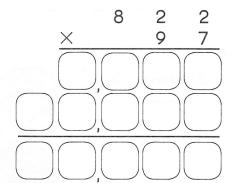




Estimate: _____ × ____ = ____

The answer is ______.

31. 822 × 97 = _____



Estimate: ____ × ___ = ____

The answer is ______.

32. 485 × 79 = _____

		4	4	8	5
	\times			7	9
		$\mathcal{I}_{I}}}}}}}}}}$		ال	
		<i>),</i> _			
$\overline{}$					
				ال	

Estimate: _____ × ____ = ____

The answer is ______.

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

Step 2

Divide 8 hundreds by 3.

8 hundreds \div 3

= 2 hundreds with 2 hundreds left over

= 200 with 20 tens left over

Step 3

Divide 25 tens by 3.

25 tens ÷ 3

= 8 tens with 1 ten left over

= 80 with 10 ones left over

Step 4

Divide 12 ones by 3.

12 ones \div 3 = 4 ones

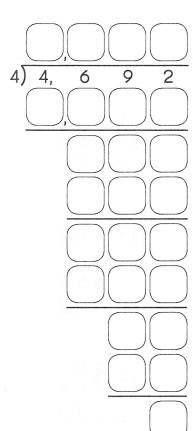
So,
$$3,852 \div 3 = 1,284$$



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

No remainder.

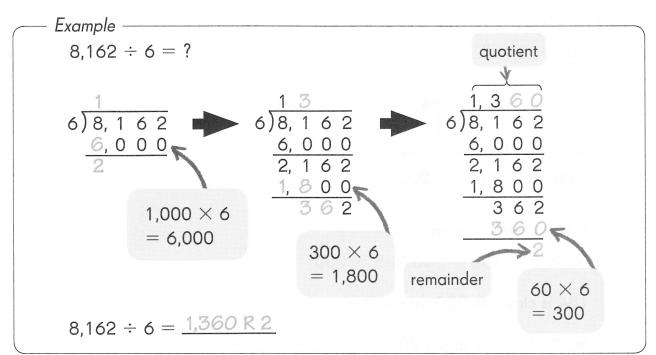
1. 4,692 ÷ 4



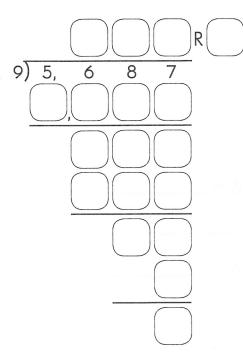
2. 7,326 ÷ 9

9) 7,	3		2	6
),(
		W ZT		

Find each quotient and remainder.



3. 5,687 ÷ 9

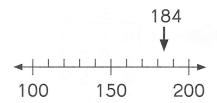


4. 9,395 ÷ 7

7) 9, 3 9 5	

Estimate each quotient using related multiplication facts.

Example - $184 \div 5 = ?$



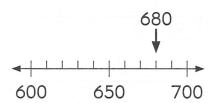
Related multiplication facts:

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

184 is closer to 200 than to 150.

So,
$$184 \div 5$$
 is about $200 \div 5 = 40$

5. $680 \div 6$



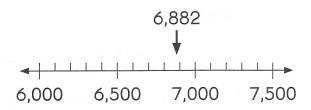
$$110 \times 6 =$$

$$110 \times 6 =$$
 $120 \times 6 =$

680 is closer to ______ than to _____.

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

6. 6,882 ÷ 8



_____×____= ____×____

6,882 is closer to ______ than to _____.

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

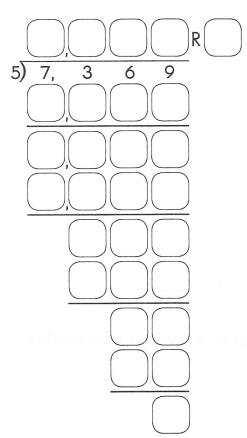
Divide. Then estimate to check whether your answer is reasonable.

Example —

$$4,156 \div 6 = ?$$

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

7. 7,369 ÷ 5



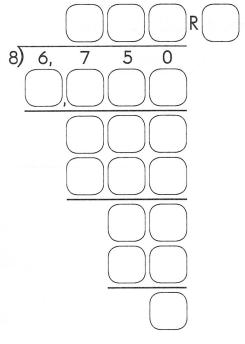
Estimate:

_____÷ 5 = _____

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

the answer is ______.

8. 6,750 ÷ 8



Estimate:

_____ ÷ 8 = _____

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

the answer is ______.

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 <u>\$22,320</u> 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?

_____× 21 = _____

They pack _____ boxes of pears in 21 days.

Solve each problem using models.

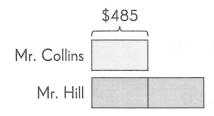
Example

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?

Step 3 How much do they save in 12 months?

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

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

Complete the model. Write the missing numbers.

a. How many marbles does Tony have?

1 unit → _____

4 units → _____ × 4 = _____

Tony has _____ marbles.

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

_____ ÷ 9 = _____ R ____

He has _____ full boxes.

How many marbles are not packed in a full box?

____ marbles are not packed in a full box.

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.



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.

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.

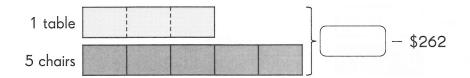
What is the total cost of all the items?

The total cost of all the items is _____.

b. How much does the computer cost?

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 ______.