DATE

Multiplication & Division Facts

	1	Complete	the	multipl	ication	facts.
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0	7	8	3	6	3	7
× 5	× 4	× 6	× 4	× 6	× 6	× 8
4	6	7	8	1	3	5
× 4	× 8	× 7	× 4	× 9	× 7	× 6
10	5	8	9	4	7	6
× 4	× 5	× 8	× 3	× 9	× 5	× 7

2 Complete the division facts.

42 ÷ 6 =	54 ÷ 6 =	24 ÷ 3 =
63 ÷ 9 =	28 ÷ 4 =	7 ÷ 1 =

3 Write a greater than, less than, or equal sign to complete each number sentence. Try to complete each number sentence without doing all the calculations.

example 36 + 4 < 26 + 20	a 2 × 24 2 × 16
b 400 ÷ 80 400 ÷ 10	C 77 – 20 67 – 20
d 36 + 23 46 + 16	e 458 – 129 358 – 29
f 3×360 40 × 30	g 50 × 400 400 × 50
h 2,500 ÷ 10 1,000 ÷ 5	i 24,000 ÷ 6 48,000 ÷ 12

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Multiplication Practice

1 Solve the following multiplication problems.

20	20	30	30	30	40	40
× 3	× 4	× 6	× 8	× 9	× 5	× 7
50	50	50	60	60	60	70
50	50	50	00	00	00	70
× 3	$\times 4$	× 8	× 8	× 5	× 6	× 7
70	90	80	80	90	80	40
× 3	× 7	× 7	× 6	× 8	× 9	× 8

2 Solve each problem below using the partial products method shown.

135	27	29	57
× 4	× 6	× 5	× 6
4 × 100 = 400			
4×30= 120			
4×5= + 20			
540			
53	108	217	433
× 8	<u>× 6</u>	× 4	× 6

Practice Book Use anytime after Bridges, Unit 1, Session 10.

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Addition & Subtraction Review

1 Solve the addition problems below.

457	387	609	1,589
+ 142	+ 414	+ 734	+ 3,437

2 Solve the subtraction problems below.

803	745	985	3,581
- 547	- 548	- 237	- 1,346

3 Fill in the missing numbers to make each equation true.

a 100 = + 30	b 100 × = 1,000
C $4 = $ $\div 9$	d = 100 - 56
e 18 × 2 = × 4	f 90 ÷ = 5 × 9

4 Fill in the missing digits.

example	a	Ь
5 3 6		
-248	<u>-1</u> <u>9</u>	<u> </u>
2 8 8	2 2 3	4 0 5
C	d	e
	3 0 🗌 8	5 0 6 🗌 3
<u>-1</u> 2	-1 9	- 7 5 5
$2 9 \square 7$	712	$1 \square 1 3 \square$

Order of Operations

The order of operations tells you how to do calculations when there is more than one kind of operation.

Order of Operations	Example
	20 – 12 ÷ (3 + 1)
1. Anything inside parentheses	20 − 12 ÷ (3 + 1) = 20 − 12 ÷ 4
2. Multiplication and division from left to right	20 − 12 ÷ 4 = 20 − 3
3. Addition and subtraction from left to right	20 – 3 = 17

1 Use the order of operations above to complete each equation.

a (9 + 3) × (16 ÷ 8) ÷ 4	b $(365 + 35) \div 5 + 3$
C $36 \div 6 + 4 \times (27 \div 9)$	d $(26 - 18) \times 5 \div 10 + 10$

2 Insert parentheses to make each equation true.

a $2 \times 18 - 5 + 15 \div 5 = 32$	b $34 - 20 \div 4 + 3 = 2$
C $14 = 50 - 42 \div 3 + 4 \times 6$	d $21 = 7 + 16 - 8 \div 2 + 2 \times 25 \div 5$
CHALLENGE	

3 Using at least two operations, write an expression that is the same whether you do the calculations from left to right or using the correct order of operations.

Using the Standard Multiplication Algorithm

1 Solve these multiplication problems.

80	80	90	90	100	100
× 30	\times 40	× 30	\times 40	× 30	× 40

 $\mathbf{2}$ Solve these multiplication problems using the standard algorithm. Use the answers above to help make sure your answers are reasonable.

ex	a 79 <u>× 26</u>
86 <u>× 32</u>	c <u>92</u> <u>× 37</u>
d 82 × 43	€ 98 29

Multiplication & Division Review

1 Complete the following multiplication tables.

a	×	2	9	6	5	7	20	40	30
	60	120							
b	×	2	9	6	5	7	20	40	30
	40	80							

2 Complete the following division table.

•	1,200	900	60	210	1,500	1,800	270	2,400
30	40							

3 Solve these multiplication problems using the standard algorithm.

1 84	58	451	256
× 36	× 27	× 32	× 33
, 504 + 2,520			
3,024			
177	305	573	837
× 49	× 64	× 26	× 86

Thinking About Divisibility

It's easy to tell if a small number like 12 is divisible by another number. With bigger numbers, like 435, it can be harder to tell. Fill in the rules for knowing if a certain number is divisible by 5 or 10. Then figure out which numbers are divisible by each number.

Rule	Circle the numbers that ar number whose rule you	e divisible by the just described.
EX a Finish the rule: A number is divisible by 2 if there is 0, 2, 4, 6, or 8 in the ones place.	b 431 (126) (902) 463	3 4,595 3,008
1 A number is divisible by 3 if the sum of its digits is divisible by 3.	3 117 409 423	6,151 3,213
2a Finish the rule: A number is divis- ible by 5 if) 205 452 600	2,365 7,004
3 A number is divisible by 6 if the sum of its digits is divisible by 3 and it is even.	3 132 270 588	2,706 3,512
4 A number is divisible by 9 if the sum of its digits is divisible by 9.	3 225 324 965	1,809 2,584
5a Finish the rule: A number is divis- ible by 10 if) 208 700 810	2,304 8,430

Products & Secret Paths

1 Circle the two numbers whose product is shown. Hint: *Use estimation to help.*

Product	Circ multi	e the two ply to ma	o numbers like the pro	s that oduct.	Use this space fc	or work if you need to.
EX 1,196	12	23	52	83	Estimates: 12 x 83 (800) 52 x 83 (4000)	12 × 23 (200) (23 × 52 (1000)
a 714	14	22	42	51		
b 1,008	14	24	42	58		
C 2,211	21	33	51	67		
d 2,730	15	42	65	82		

2 Use multiplication and division to find the secret path through each maze. The starting and ending points are marked for you. You can only move one space up, down, over, or diagonally each time. Write four equations to explain the path through the maze.

ex					a		end	start	b	end	start		
	20~	- 60-	-3			4	40	160		14	540	9	
end	3	9	180			10	80	2		7	60	3	
start	36 -	- 4	20			10	100	50		2	90	180	
	36	5 ÷ 4 =	= 9	-									
	9 ×	20 =	180										
	180	÷3 =	60										
	60	÷ 20	= 3										

Division Estimate & Check

Make a multiplication menu for each divisor. Complete the sentence to identify a range of reasonable answers. Then use long division to find the exact answer, including the remainder if there is one.

Problem	Multiplication Menu	Range of Reasonable Answers	Your Work	Exact Answer
ex 307 ÷ 19	19 × 10 = 190 19 × 20 = 380 19 × 5 = 95 19 × 2 = 38	The answer will be less than <u>20</u> and greater than <u>10</u> .	1 5 16 r3 19 307 <u>- 190</u> 117 <u>- 95</u> 22 <u>- 19</u> 3	16 r3
1 396 ÷ 17		The answer will be less than and greater than 		
2 275 ÷ 13		The answer will be less than and greater than 		

Order of Operations Review

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1. Anything inside parentheses	20 − 12 ÷ (3 + 1) = 20 − 12 ÷ 4
2. Multiplication and division from left to right	20 − 12 ÷ 4 = 20 −3
3. Addition and subtraction from left to right	20 – 3 = 17

1 Use the order of operations above to complete each equation. Show all your work.

a = $463 - 180 \div (3 \times (2 + 3))$	b $(249 - 192) \div 3 \times 14 =$
C = $36 + 14 \times (182 - 164) \div 12$	d $(9 \div 3 + 213) - 72 \div 4 = $

2 Insert parentheses to make each equation true. Show all your work.

a $3 \times 9 + 18 + 36 \div 9 = 33$	b $2 = 140 \div 2 + 12 - 4 \times 2$

Reviewing Three Number Properties

If you are adding or multiplying, you can change the order of the numbers or the way they are grouped to make the calculations easier. The three properties below can make mental math easier.

Commutative Property	Associative Property	Distributive Property
Changing the order of two numbers or numerical expressions when you add or multiply does not change the answer.	Changing the way you group three numbers or numerical expressions when you add or multiply does not change the answer.	You can break a number apart, multiply each part separately, and then add the products. You will still get the same answer.
5 + 2 = 2 + 5 $5 \times 2 = 2 \times 5$	$(38 \times 4) \times 25 = 38 \times (4 \times 25)$ = 38 × 100 = 3,800	$6 \times 13 = 6 \times (10 + 3)$ = 6 × 10 + 6 × 3 = 60 + 18 = 78

- **1** For each problem below:
- Write it a different way so it is easier to solve in your head.
- Solve it and write the answer.
- Circle C if you switched the order of the numbers.
- Circle A if you grouped the numbers in a different way.
- Circle D if you broke the number apart and multiplied one part at a time.
- You may need to circle more than one property.

Problem	Rewrite	Answer	Property
ex (70 + 469) + 30	(70 + 30) + 469	569	©A D
a 12 × 23			CAD
b (50 × 73) × 2			C A D
C 15 + (135 + 86)			C A D
d 35 × 8			CAD
e $25 \times (4 \times 329)$			C A D
f $(34 \times 50) \times 20$			CAD

Division Review

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Problem	Multiplication Menu	Range of Reasonable Answers	Your Work	Exact Answer
ex 307 ÷ 19	19 × 10 = 190 19 × 20 = 380 19 × 5 = 95 19 × 2 = 38	The answer will be less than <u>20</u> and greater than <u>10</u> .	1 5 10 19 307 <u>- 190</u> 117 <u>- 95</u> 22 <u>- 19</u> 3	16 r3
1 547 ÷ 17		The answer will be less than and greater than 		
2 450 ÷ 16		The answer will be less than and greater than 		

Decimal Addition & Subtraction Review

1 Fill in the missing digit so that each sum is *greater* than 1. In some cases, there will be more than one correct answer.

ex 0.106 + 0. <u>9</u> 02	a 0.512 + 0.46
b 0.920 + 098	C 0.386 + 0.61

2 Complete the following addition problems.

4920				
+ 1.886	+ 7.989	+ 14.513	+ 5.9	+ 2.600
3.034	2.006	3.080	24.38	7.608

3.27 + 5.049 = _____ 4.438 + 1.96 = _____

3 Complete the following subtraction problems.

3.946 - L\\$73	3.675 - 0.947	4.438 - 2.210	10.17 - 8.99	13.154 - 8.083
1.773				
9.056 - 5.27 =		27.003 -	26.09 =	