

May 22, 2017

Dear Parents,

We very much appreciate all you do to support your child's learning at home. This year, students will be receiving a calendar with fun math activities on it. Along with it, there will be a packet of games/activities that you may need for some of the calendar choices. Students should work toward completing each of these activities. Once the activity is complete, please initial in the box, letting us know your child has completed the task. There is also a place at the bottom of the calendar for your child's name and your signature. Please make sure both are completed prior to returning to school and have your child give to their classroom teacher.

The goal is to complete all of the activities this summer! If your child completes at least 25 of the activities with a parent signature they will take part in a special celebration when they return to school next year.

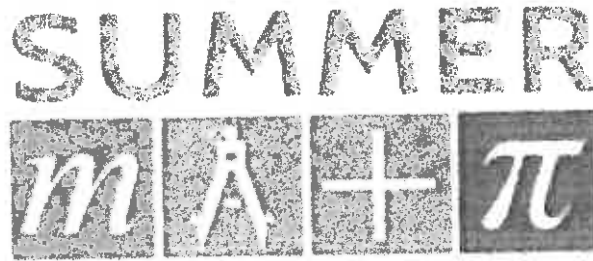
Our hope is that you will find this to be a fun, exciting, and creative way to engage your child in math activities at home. We also hope this provides you and your child with additional family time throughout the week and on weekends to enjoy each other's company and spend more family time together after work and school.

If you have any questions, please do not hesitate to contact us.

Thank you,
Sarah Huston
Dawn Dugan

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Math Resources:

Math books to read:

Alexander, Who Used to be Rich Last Sunday by Judith Viorst
100 Days of School by Trudy Harris
The Button Box by Margarette S. Reid
The Doorbell Rang by Pat Hutchins
98, 99. . . Ready or Not, Here I Come! by Teddy Slater
Super Sand Castle Saturday by Stuart Murphy

Math websites to try:

www.funbrain.com
www.pbskids.org/cyberchase/math-games
www.gregtangmath.com
www.coolmath4kids.com
www.xtramath.com
www.abcya.com
www.stmath.com (for those student with an ST Math account through school)

Math worksheets to try:

www.commoncoresheets.com
www.gregtangmath.com
www.superteacherworksheets.com
<http://www.math-aids.com>
<https://www.math-drills.com>

SUMMER MATH π

Going into 1st-2nd

Play Compare game	Count to 100 by 1's and by 10's and Read 100 Days of School	Use sidewalk chalk to write all the numbers (in order) that you can. Use paper & pencil if you do not have chalk	Today's number is 10. Write equations to show all the different ways you can make 10.	Grab a handful of coins from your piggy bank and add them up! Or grab a handful of cereal (Cheerios), count and write the number	Count forward to 120 from the number: 45 57 63 89	Today's number is 16. Write equations to show all the different ways you can make 16.
Find a crayon and a pencil. Use math language to compare the lengths of the objects.	Compare the two numbers. Tell which one is greater. How do you know? 21 17	Draw 3 different ways to make 52 cents.	Play Tens Go Fish And Read Super Sand Castle Saturday	Ask Mom or Dad for coins. How many different ways can you make \$1.00?	Count to 100 by 5's and then count backwards by 5's from 100 to 0	Ask 10 people their favorite kind of pizza. Record your data in a table, chart or graph.
There are 9 ducks swimming in a pond. Three ducks flew away. How many ducks are swimming in the pond?	Play a math game of your choice!	I am thinking of a shape. It has 4 vertices and 4 sides. Draw all the possible shapes that I could be thinking of.	Read Alexander, Who used to be Rich Last Sunday and do a worksheet from commoncoresheets.com	Draw a picture to show 3 different ways to make \$2.00 with coins	Make cookies with your family! Can you share them equally? Draw a picture to show how.	Write down the time you eat dinner. How many hours and minutes until your bedtime?
25 is the answer. What could the question possibly be? Challenge yourself to think of at least 7 questions!	Visit the website www.coolmath4kids.com Do some math!	Today's number is 18. Make 18 by adding 2 numbers, subtracting 2 numbers and adding 3 numbers.	Play Close to 10! and Read The Doorbell Rang	How many different ways can you cut a sandwich into fourths? Try it with real or paper sandwiches.	Jump rope and count by 10's to 100. Try counting backwards!	Visit the website funbrain.com Do some math!

Child's Name: _____

Guardian's Signature: _____



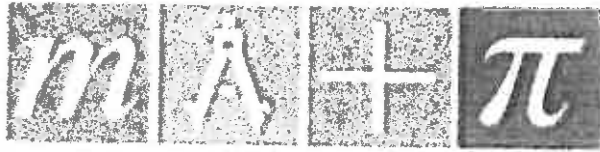
Going into 3RD-5TH (or 1st-2nd CHALLENGE)

<p>325 + <u> </u> = 375 500 = 475 + <u> </u> + 550 = 600 275 + <u> </u> = 350 300 - <u> </u> = 225 220 + <u> </u> = 350 440 = 125 + <u> </u></p>	<p>Look in your refrigerator. Categorize the items as dairy, fruit, vegetable, meat, grains, fats, or other. Make a tally chart.</p>	<p>Fold a piece of paper in half. In each section of the paper write all the facts (0 -12) in order for a factor. Example: 0 x 2 = 0, 1 x 2 = 2, ...</p>	<p>Play 10 questions. One person thinks of a number between 1 and 100. The other person asks 10 yes or no questions to guess the number. (ex: Is it odd? Is it >50?)</p>	<p>Write down ten numbers between 11-99. Add 10 to each number. Write the number sentences.</p>	<p>Complete pages 0-5 in My Book of Factors 0 Thru 12</p>	<p>Play Close to 1000</p>
<p>I am thinking of an odd number. It is greater than 33 and less than 40. You say it when you skip count by 5's. What number am I?</p>	<p>Write the numbers 1 - 100, skip counting by 7s</p>	<p>What's your strategy? 6 x 6 6 x 7 6 x 8 7 x 8 7 x 9 9 x 6 9 x 8</p>	<p>What number am I? I am > 3,449 and I am < 3,502. I have a 1 in my ones place and a zero in my tens place. Create your own number riddle.</p>	<p>Draw a design that has symmetry.</p>	<p>Complete pages 6-12 in My Book of Factors 0 Thru 12</p>	<p>Play Multiplication Squares</p>
<p>Find the perimeter and area of your front or back door.</p>	<p>Roll a die 25 times. Record the numbers that you roll each time. Which number came up the most? The least?</p>	<p>The 3 numbers in my fact family are 8, 7 and 15. What two addition and two subtraction number sentences can you make?</p>	<p>How many times can you hop on your left foot in a minute? Your right foot? Compare the number of hops using the symbols >, < or =. What's the difference?</p>	<p>What number is 10 more than 4,492? What number is 300 more than 4,830? What number is 500 more than 4,654?</p>	<p>Complete the Rows of Squares activity.</p>	<p>Play an online math game</p>
<p>Determine the pattern. What comes next in each pattern? 1, 1, 2, 4, 7, <u> </u>, 49, 64 4, 9, 16, 25, <u> </u> Make your own pattern.</p>	<p>Roll 4 dice together and multiply to find the product. Record the product. Do this 25 times.</p>	<p>How many hours did you sleep last night? Bedtime: <u> </u> Wake time: <u> </u></p>	<p>If the movie actually began at 7:05 and finished at 8:45, how much time elapsed? If you left home at 6:35 and returned at 9:05, how long were you out?</p>	<p>How much do I have if I have 3 quarters, 2 dimes, 1 nickel and 2 pennies? Can you show that value with fewer coins?</p>	<p>Complete the Multiples of Three activity.</p>	<p>Play a game of your choice!</p>

Child's Name: _____

Guardian's Signature: _____

SUMMER



Math Game and Activity Packet:

Math games to play with a deck of cards

Compare

Remove the face cards from a deck of cards. An ACE = 1. Pass out all cards among players. Each player flips over two cards at the same time and finds the sum. The player with the larger sum takes the cards. If the sums are the same, turn over 2 more cards. The player with the largest sum keeps all four cards.

Tens Go Fish

Remove the face cards from a deck of cards. Deal 5 cards to each player. Each player looks for cards that make 10, and they draw new cards from the deck to replace them. Players take turns asking each other for a card that will make 10 with a card from their hand. A player's turn is over when no more pairs can be made. the game is over when there are no more cards. Both players record their combinations of 10.

Close to 10

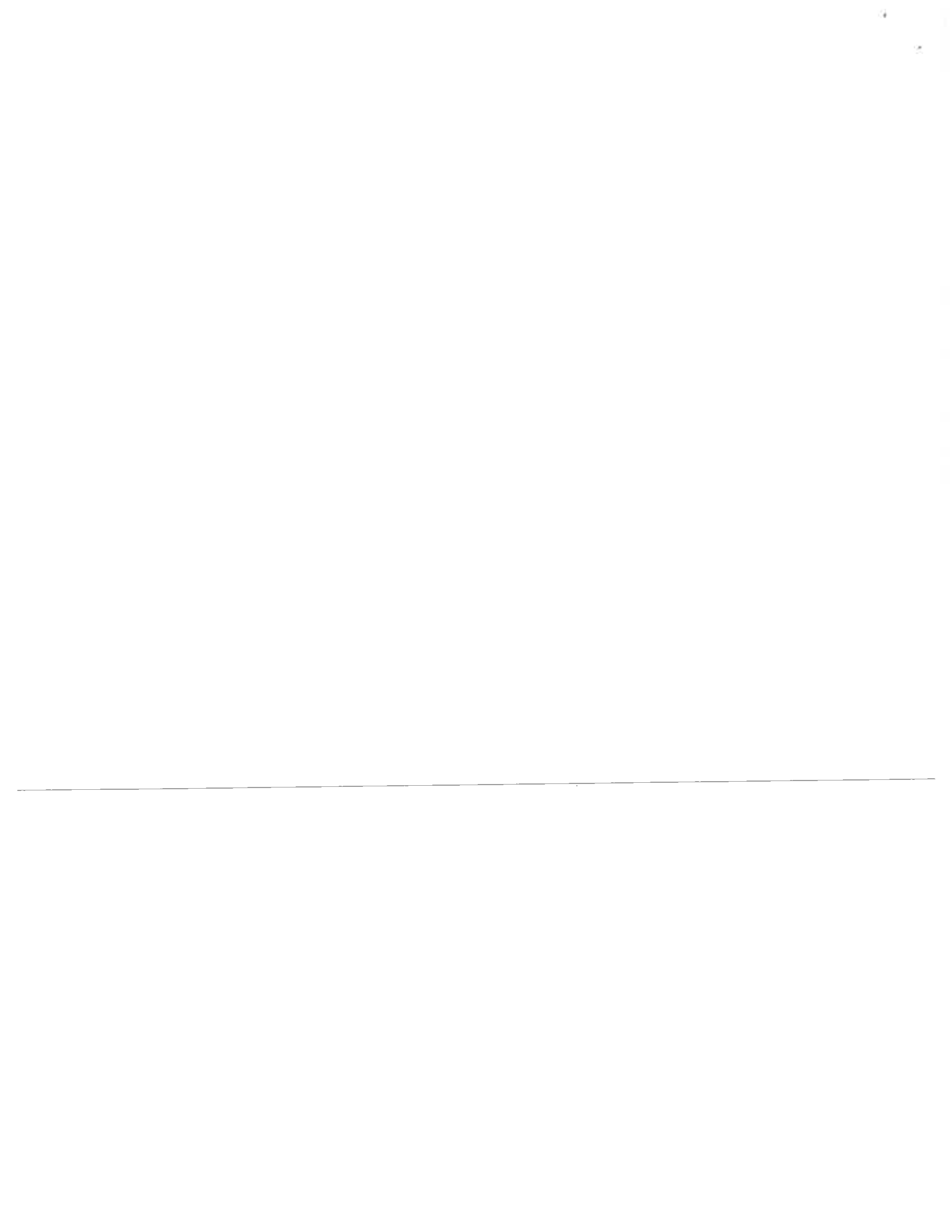
Remove the face cards from a deck of cards. Deal 3 cards to each player. Which 2 cards bring you closest to 10? Which player is closest to 10?

Example: You turn over a 5,4,3 (you can make 9) and your opponent turns over Ace (=1), 8, 3. (your opponent can make 9 or 11) It is a ties since you are both 1 away from 10!

Multiplication War

Shuffle the deck of cards and deal them face down, giving each player an equal number of cards until the deck runs out. Each player keeps his cards in a stack. Assign picture cards, such as jacks, queens, and kings, a value of 10. Give aces a value of either 11 or 1. Each player turns two cards face up, reads the number sentence and supplies the answer. For example, if your child draws a 5 and a 4, he says $5 \times 4 = 20$. If you draw a 7 and an 8, then your number sentence is $7 \times 8 = 56$. Because your product is larger, you win the four cards and you put them at the bottom of your pile. If each of you has a number sentence with the same product, then it's war! Each player puts four cards face down and turns up two of them. The player with the largest product wins the eight cards. Set up the timer and play the game for 10 to 15 minutes. When the bell goes off, each player counts his cards. The player with the most cards wins. If one player runs out of cards before time is up, then the other player wins.

**Additional math games attached,
instructions included!**



Name _____

Five in a Row

Subtract 2



Directions: Roll 2 dice, add them up, subtract 2 from the sum and color the number on the game board. The first person to get 5 in a row WINS!

10	3	5	0	4
1	9	6	8	7
9	3	FREE Space	1	2
6	8	4	9	7
10	6	5	6	2

TAPE RACE



Materials

- Tape Race Game Board cardstock, or TR1
- 1–6 dot cube
- 40 small counters or pennies

Directions

1. Take turns. Toss the dot cube and place that number of counters on your tape. Be sure to put one counter on each square of the tape.
2. Before your turn, **tell how many counters are on your tape.** (1, 2, 3. I have 3 counters on my tape.)
3. The first player to fill the tape wins.



Step 2: "1, 2, 3. I have 3 counters on my tape."

More Games

- A. Work together on one tape to fill it to 20.
- B. Begin with the tape filled. Remove counters.

TEACHING TAPE RACE

Concepts and Skills

- instantly recognize small sets
- count with one-to-one correspondence to 20
- count by fives and ones

Vocabulary

- number names for 1–20—the word you say for each number (1, 2, 3 is *one, two, three*)

Handbook References

- Numbers to 19, p. 2
- Numbers 0 to 9, p. 3
- Numbers 10 to 19, p. 6



Getting Ready

- Practice counting from 1 to 20 by ones and fives.
- Hold up the 1–6 Ten Grid Cards one at a time and encourage children to tell the amount as quickly as they can.

Modeling the Math

Show children the tape and invite them to share what they notice.

Teacher: Let's look at our tape. What do you notice?

Child: It has different colored spaces.

Teacher: Let's count these spaces.

Child: There are 5 white, then 5 dark, then 5 white, then 5 dark.

Teacher: You are right. We have groups of 5 on our tape. How could you count all the groups?

Child: 5, 10, 15, 20.

Teacher: Yes, and is there another way to count the spaces on the tape?

Child: A slower way is 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.

Demonstrate tossing the cube and placing that number of counters on the tape, one to a square. Remind children to tell before they toss.

Teacher: We tossed a 3, so we get to place 3 counters on our tape. 1, 2, 3.

Teacher: We need to remember to tell the number of counters we have on the tape before each toss.

Child: We have 3 counters, and next we toss a 5.

Teacher: Who can tell our total now?

Child: We have 8. 1, 2, 3, 4, 5, 6, 7, 8.

Teacher: That's right, we have 8. Is there another way that we could count these?

Child: We know that this is 5 (pointing to the first group of 5) and we could count 5, 6, 7, 8.

Teacher: Yes, those are both ways to count to 8.

Teacher: Let's try another toss.

Child: We have 8 counters on the tape. We got a 6.

Teacher: We have a lot of counters on our tape now. Who will tell before we toss?

Child: We have 5, 10, 11, 12, 13, 14.

Reflecting on the Math

As children play in pairs, ask questions such as:

- How are you counting your counters? Do you count each one, or do you group and count?
- Who has more? How can you tell?

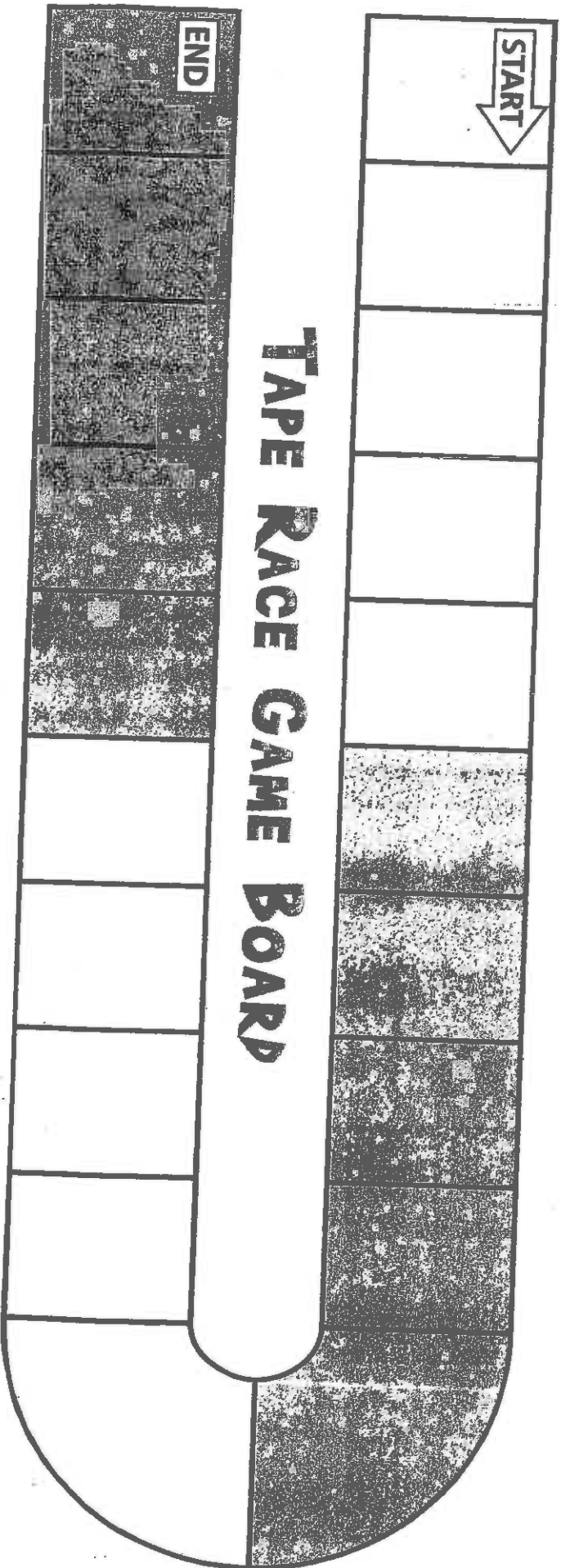
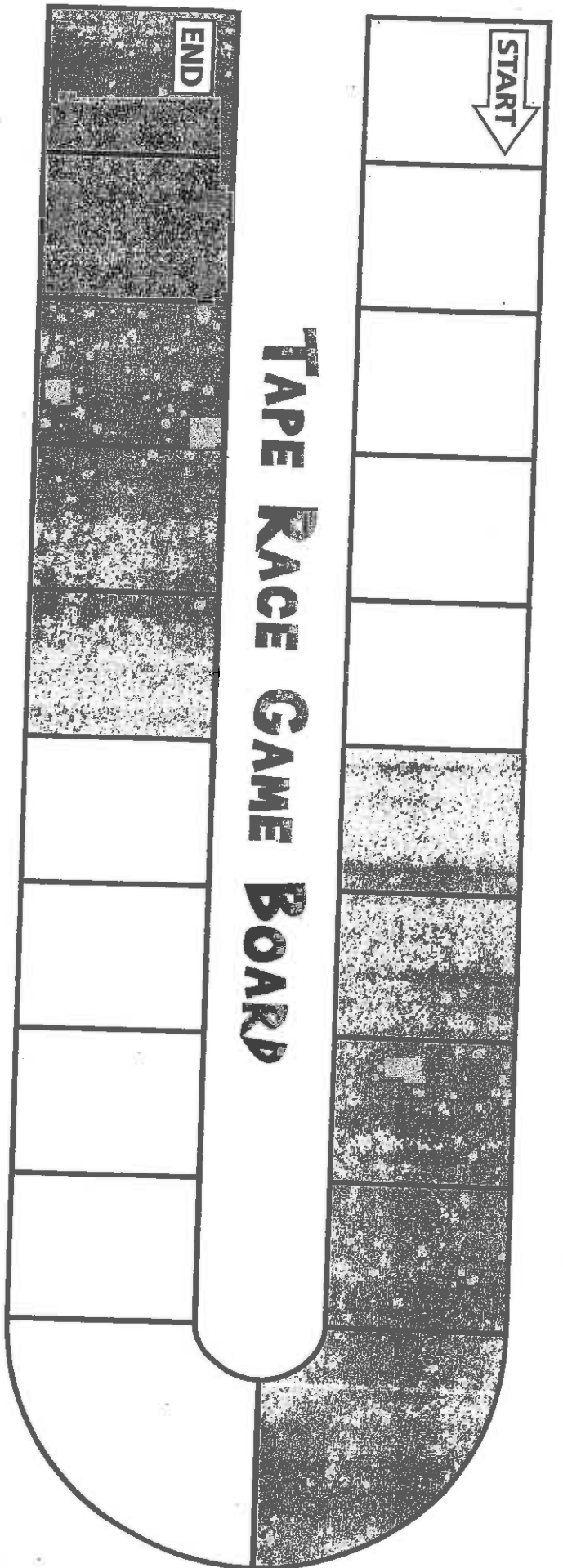
Differentiating Instruction

Simplify Work together on one tape to fill it to 20.

Extend Begin with the tape filled. Remove counters.

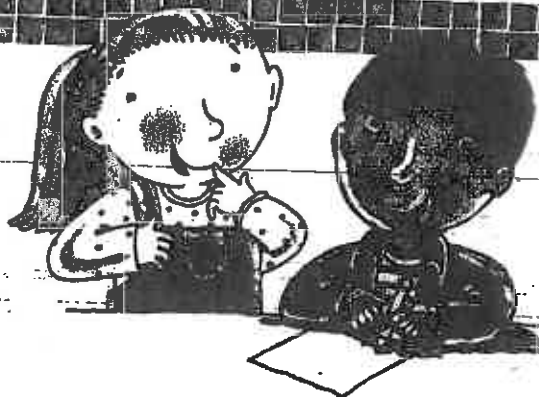
Ongoing Assessment

- Does the child have instant recognition of small sets on the dot cube? (N3)
- Does the child count the counters using one-to-one correspondence? (N1)
- Does the child use groups of five as a shortcut to counting every counter? (N7)



How do I describe
the take-away
action?

FILL UP TENS TO TAKE AWAY

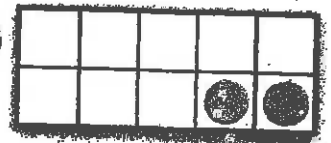
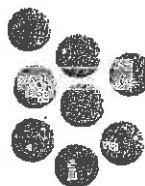
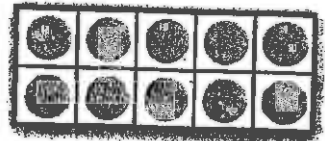
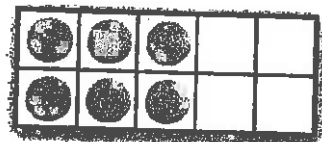
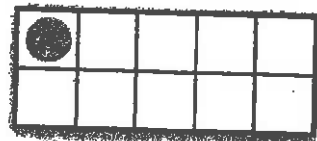
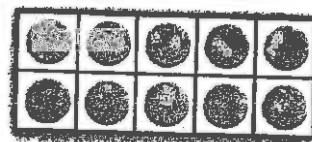


Materials

- Fill Up Tens Game Board cardstock, or TR4
- 50 small counters or pennies
- two 1–6 dot cubes

Directions

1. Fill 5 of the ten grids with counters.
2. Choose to roll either one or two dot cubes. After you roll, take away that total number of counters all from *just one* of the grids.
3. After taking away the counters, **tell the take-away sentence that goes with it. (10 take away 8 leaves 2.)**
4. If the number tossed is greater than the counters left on any one of the ten grids, you lose your turn.
5. If you clear a grid, you take it. The first player with 3 grids wins.



Step 3: "10 take away 8
leaves 2."

More Games

- A. Fill only 3 of the ten grids and toss one dot cube.
- B. Write a subtraction number sentence to go with your take-away action.
- C. Start with blank ten grids. Play to fill up the grids. The number tossed must all be placed in one grid. Tell an addition sentence.

TEACHING FILL UP TENS TO TAKE-AWAY

Concepts and Skills

- visualize combinations for sums to 10
- practice subtraction facts to 10

Vocabulary

- take away subtraction—take away part of a group and see how many are left

Handbook References

- Ways to Make 10, p. 67
- Subtract from Ten, p. 87



Getting Ready

- Use objects and tell stories to review taking away.
- Provide children with opportunities to practice identifying the number of counters on partially filled ten grids as quickly as they can.

Modeling the Math

Demonstrate how to fill the grids with counters.

Teacher: Here is a ten grid. Tell us how to fill it with counters.

Child: You put 1 counter on each space in the grid. We have 2 rows of spaces.

Teacher: How many spaces are in each row?

Child: 5. So I put 5 counters on one row and 5 on the other.

Teacher: When we fill a ten grid with counters, how many counters do we always have on the grid?

Child: 10.

Model tossing the cubes, adding the dots on the cubes, and describing the take-away process from the first grid.

Teacher: Since all of the ten grids are filled, should I toss one or two cubes?

Child: I think two cubes.

Teacher: Okay, we tossed a 5 and a 3. Can I take 5 from one grid and 3 from another?

Child: No, we have to take all 8 of them from one grid. 10 take away 8 leaves 2.

Model the take-away process from another grid.

Teacher: What number do you hope that we toss this turn?

Child: We need a 2, and we could empty a grid.

Teacher: We tossed a 4 and a 5. Let's think about how we can add these dots.

Child: We can start with the 5 and count 6, 7, 8, 9.

Teacher: We have 9. Where can we get 9 counters?

Child: We can take 9 away from this ten grid (pointing to a grid filled with 10).

Teacher: What take away sentence would we need to say?

Child: 10 take away 9 leaves only 1.

Reflecting on the Math

As children play in pairs, ask questions such as:

- How do you add the dots on the cubes when looking for the total?
- How do you decide which grid to take the counters from?
- What take-away number sentence will you tell for this grid?

Differentiating Instruction

Simplify Fill only 3 of the ten grids and toss one dot cube.

Extend Write a subtraction number sentence to go with your take-away action.

Further Variation Start with blank ten grids. Play to fill up the grids. The number tossed must all be placed in one grid. Tell an addition sentence.

Ongoing Assessment

- Which quantities does the child recognize on the grids without counting? (C4)
- Does the child describe the subtraction with ease? (C9)



Close to 0

Materials

- One deck of Numeral Cards (face cards removed)
- Close to 0 Score Sheet for each player

Players: 2

How to Play

1. Deal out 6 Numeral Cards to each player.
2. Use any four cards to make two numbers. For example, a 6 and a 5 could make 56 or 65. Wild cards can be used as any numeral. Try to make two numbers that, when subtracted, give you a difference that is close to 0.
3. Write these numbers and their difference on the Close to 0 Score Sheet. For example, $56 - 37 = 19$. The difference is your score.
4. Put the four cards you used in a discard pile. Keep the two cards you didn't use for the next round.
5. For the next round, deal four new cards to each player. Make two more numbers with a difference close to 0. When you run out of cards, mix up the discard pile and use them again.
6. After five rounds, total your score. Lower score wins.

Variation

Deal out **eight** Numeral Cards to each player. Each player uses **six** cards to make two numbers that, when subtracted, give a difference that is close to 0.

Close to 0 Score Sheet

Name _____				
Game 1				Score
Round 1:	_____	-	_____	= _____
Round 2:	_____	-	_____	= _____
Round 3:	_____	-	_____	= _____
Round 4:	_____	-	_____	= _____
Round 5:	_____	-	_____	= _____
			Total Score	_____

Name _____				
Game 2				Score
Round 1:	_____	-	_____	= _____
Round 2:	_____	-	_____	= _____
Round 3:	_____	-	_____	= _____
Round 4:	_____	-	_____	= _____
Round 5:	_____	-	_____	= _____
			Total Score	_____

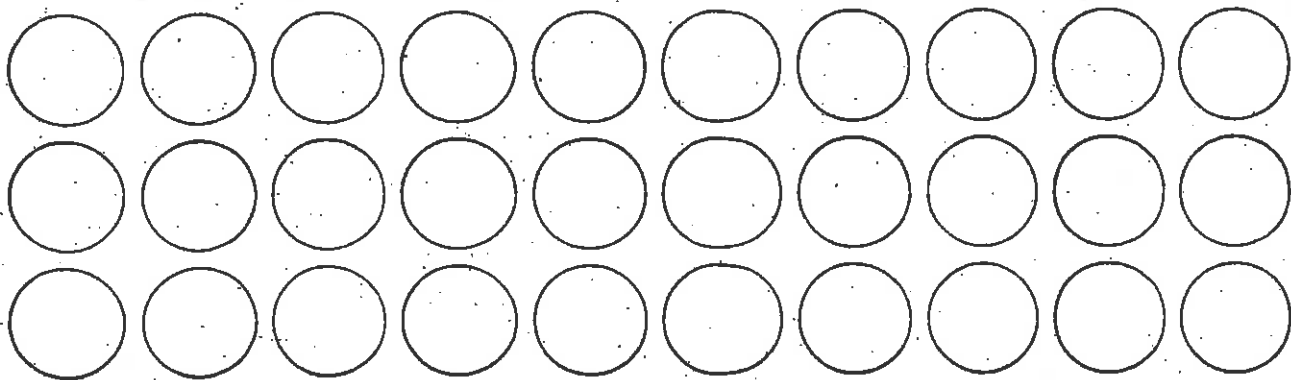
MY BOOK OF FACTORS 0 THRU 12



Name _____

100 Chart with Skip Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Name _____

Multiplying with 0 and 1

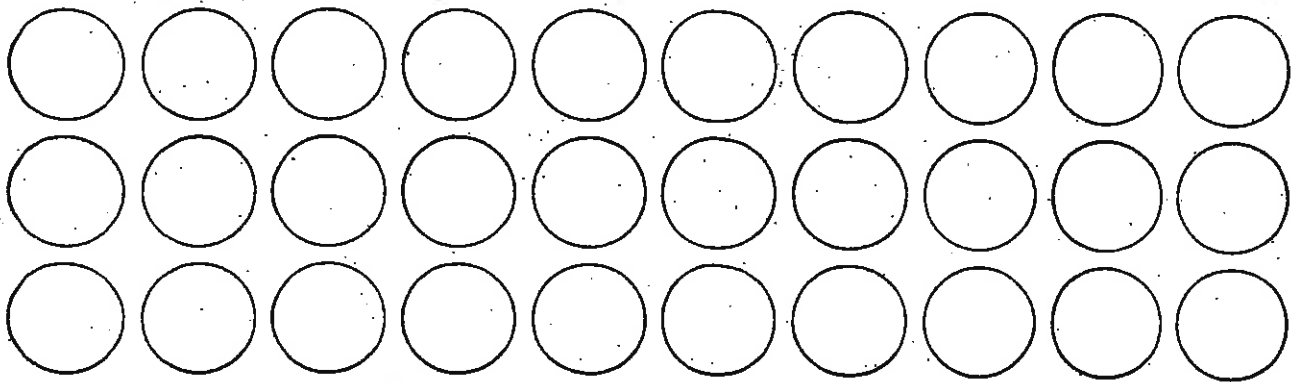
Facts Tables

1s Facts	
If I Know	Then I Know
$0 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 0 = \underline{\quad}$
$1 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 1 = \underline{\quad}$
$2 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 2 = \underline{\quad}$
$3 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 3 = \underline{\quad}$
$4 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 4 = \underline{\quad}$
$5 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 5 = \underline{\quad}$
$6 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 6 = \underline{\quad}$
$7 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 7 = \underline{\quad}$
$8 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 8 = \underline{\quad}$
$9 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 9 = \underline{\quad}$

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31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Name _____

Multiplying with 0 and 1

Facts Tables

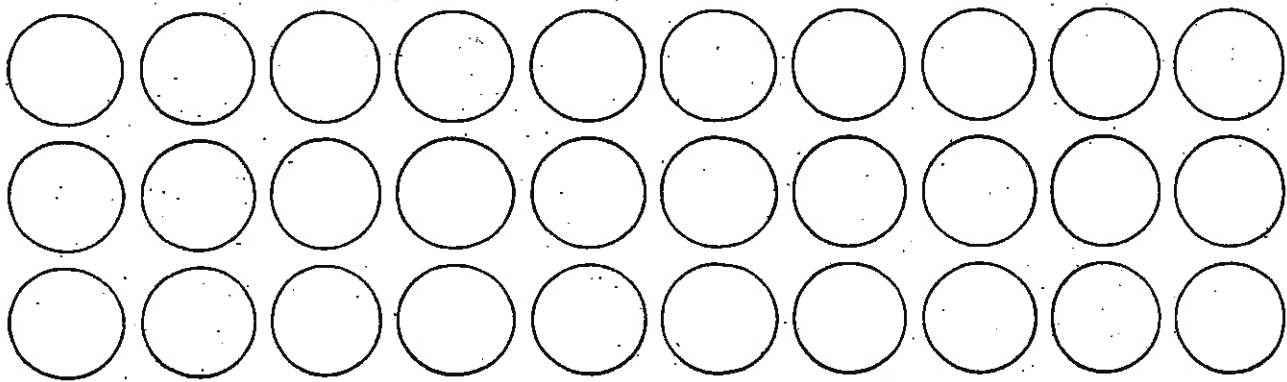
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$5 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 5 = \underline{\quad}$
$6 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 6 = \underline{\quad}$
$7 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 7 = \underline{\quad}$
$8 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 8 = \underline{\quad}$
$9 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 9 = \underline{\quad}$

Interactive Learning
Recording Sheet 11

100 Chart with Skip Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Name _____

2 and 5 as Factors

Facts Tables

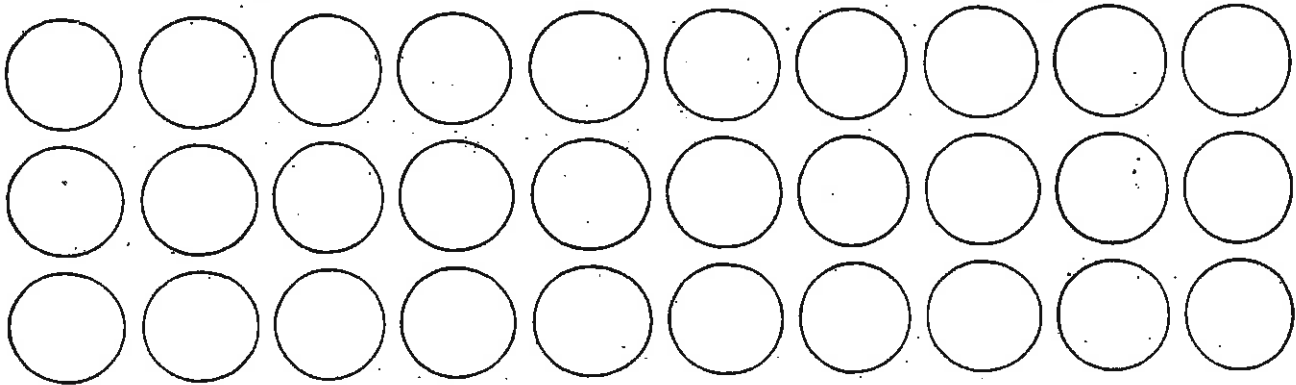
2s Facts	
If I Know	Then I Know
$0 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 0 = \underline{\quad}$
$1 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 1 = \underline{\quad}$
$2 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 2 = \underline{\quad}$
$3 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 3 = \underline{\quad}$
$4 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 4 = \underline{\quad}$
$5 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 5 = \underline{\quad}$
$6 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 6 = \underline{\quad}$
$7 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 7 = \underline{\quad}$
$8 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 8 = \underline{\quad}$
$9 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 9 = \underline{\quad}$

5s Facts	
If I Know	Then I Know
$0 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 0 = \underline{\quad}$
$1 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 1 = \underline{\quad}$
$2 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 2 = \underline{\quad}$
$3 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 3 = \underline{\quad}$
$4 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 4 = \underline{\quad}$
$5 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 5 = \underline{\quad}$
$6 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 6 = \underline{\quad}$
$7 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 7 = \underline{\quad}$
$8 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 8 = \underline{\quad}$
$9 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 9 = \underline{\quad}$

Interactive Learning
Recording Sheet **8**

100 Chart with Skip Counting circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



3 as a Factor

You can use an array to show 3s facts.

3s Facts

$3 \times 0 = 0$	$3 \times 5 = 15$
$3 \times 1 = 3$	$3 \times 6 = 18$
$3 \times 2 = 6$	$3 \times 7 = 21$
$3 \times 3 = 9$	$3 \times 8 = 24$
$3 \times 4 = 12$	$3 \times 9 = 27$

Multiply 2×3 using arrays.



$$2 \times 3 = 6$$

You can also use a 2s and a 1s fact to find a 3s fact.

Find 7×3 .

a. Find a 2s fact with 7: $2 \times 7 = 14$

b. Find a 1s fact with 7: $1 \times 7 = 7$

c. Add the facts: $14 + 7 = 21$

Find each product.

1. 3×2

2. 3×4

3. 3×5

4. 3×1

5. 3×9

6. 6×9

7. 7×3

8. 0×3

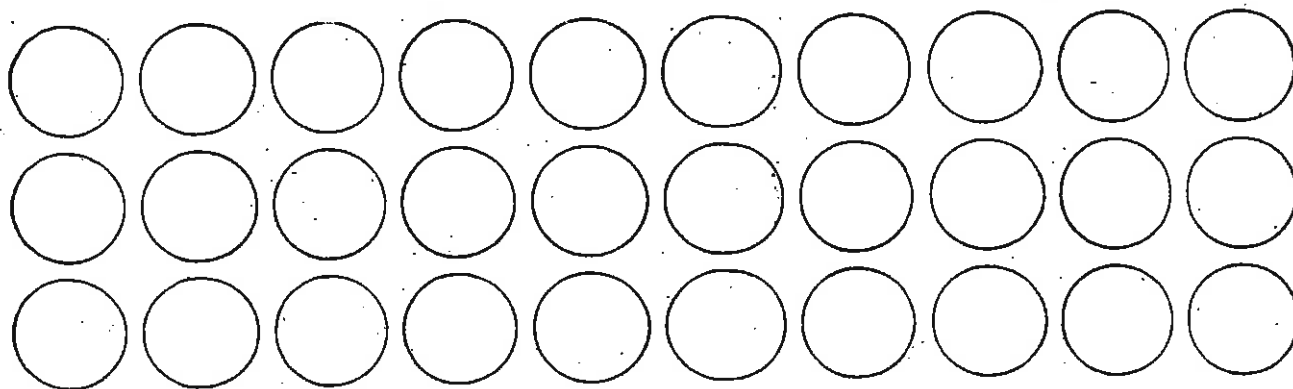
9. 8×5

10. 3×3

11. **Number Sense** How can you use a 2s fact and a 1s fact to find 3×8 ?

100 Chart with Skip Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



4 as a Factor

If you know a 2s multiplication fact, you can find a 4s multiplication fact.

4s Facts

$4 \times 0 = 0$	$4 \times 5 = 20$
$4 \times 1 = 4$	$4 \times 6 = 24$
$4 \times 2 = 8$	$4 \times 7 = 28$
$4 \times 3 = 12$	$4 \times 8 = 32$
$4 \times 4 = 16$	$4 \times 9 = 36$

You can double a 2s fact or add a 2s fact by itself to find a 4s fact.

Find 4×3 by doubling a 2s fact.

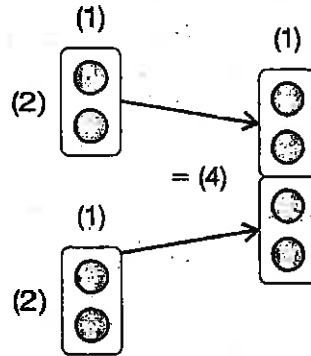
- a. Find a 2s fact with 3 as a factor.

$$2 \times 3 = 6$$

- b. Double it.

$$2 \times 6 = 12$$

When you double an array of 2×1 , you get an array of 4×1 .



Find 4×3 by adding a 2s fact by itself.

- a. Find a 2s fact with 3 as a factor.

$$2 \times 3 = 6$$

- b. Add the fact to itself.

$$6 + 6 = 12$$

Find each product.

1. 4×6

2. 8×4

3. 6×5

4. 9×4

5. 4×1

6. 4×3

7. 4×7

8. 12×2

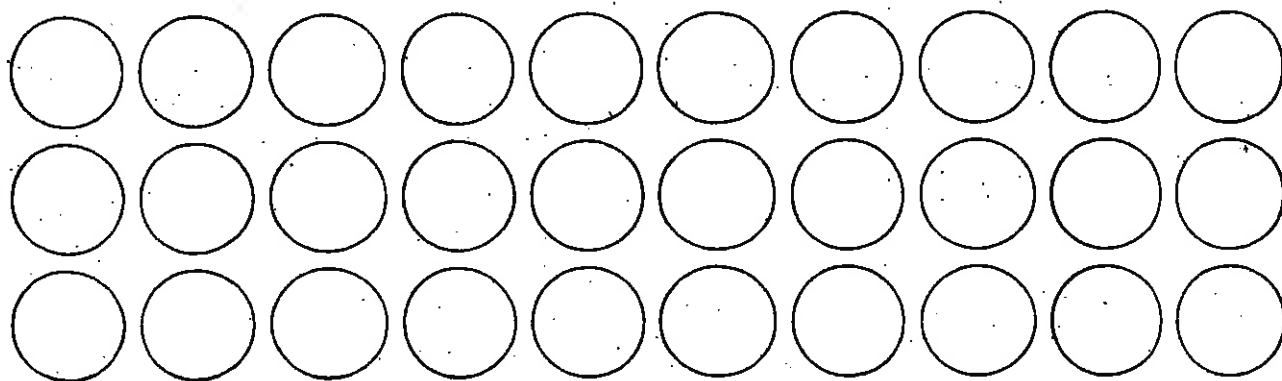
9. 0×4

10. 4×4

11. **Number Sense** How can you use 2×8 to find 4×8 ?

100 Chart with Skip Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



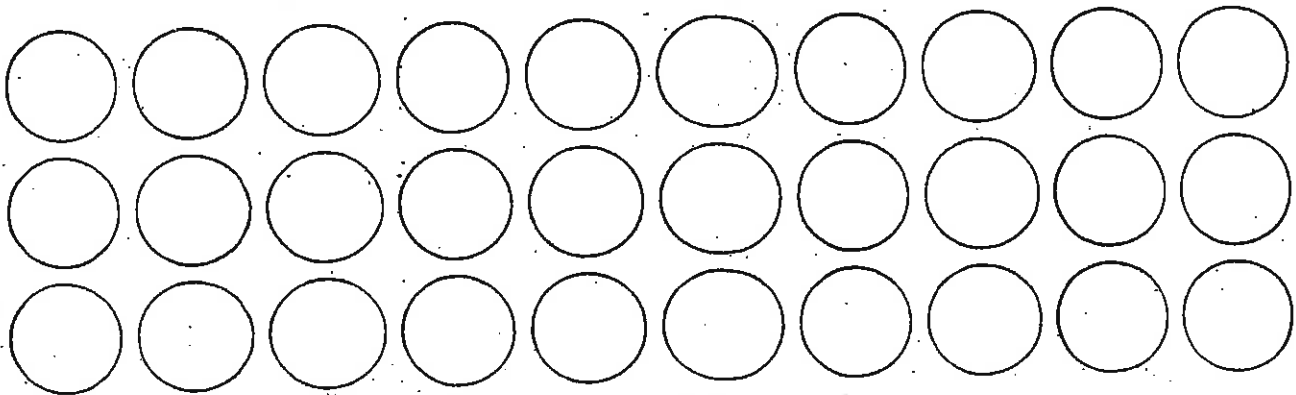
2 and 5 as Factors**Facts Tables**

2s Facts	
If I Know	Then I Know
$0 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 0 = \underline{\quad}$
$1 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 1 = \underline{\quad}$
$2 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 2 = \underline{\quad}$
$3 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 3 = \underline{\quad}$
$4 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 4 = \underline{\quad}$
$5 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 5 = \underline{\quad}$
$6 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 6 = \underline{\quad}$
$7 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 7 = \underline{\quad}$
$8 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 8 = \underline{\quad}$
$9 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 9 = \underline{\quad}$

5s Facts	
If I Know	Then I Know
$0 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 0 = \underline{\quad}$
$1 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 1 = \underline{\quad}$
$2 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 2 = \underline{\quad}$
$3 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 3 = \underline{\quad}$
$4 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 4 = \underline{\quad}$
$5 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 5 = \underline{\quad}$
$6 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 6 = \underline{\quad}$
$7 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 7 = \underline{\quad}$
$8 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 8 = \underline{\quad}$
$9 \times \underline{\quad} = \underline{\quad}$	$\underline{\quad} \times 9 = \underline{\quad}$

100 Chart with skip counting

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



6

6 and 7 as Factors

You can use multiplication facts that you already know to find other multiplication facts.

6s Facts

$6 \times 0 = 0$	$6 \times 5 = 30$
$6 \times 1 = 6$	$6 \times 6 = 36$
$6 \times 2 = 12$	$6 \times 7 = 42$
$6 \times 3 = 18$	$6 \times 8 = 48$
$6 \times 4 = 24$	$6 \times 9 = 54$

You can use a 3s fact to find a 6s fact. Find the 3s fact and then add the product to itself.

Find 6×9 .

a. Find the 3s fact with 9: $3 \times 9 = 27$.

b. Add the product to itself: $27 + 27 = 54$.

7s Facts

$7 \times 0 = 0$	$7 \times 5 = 35$
$7 \times 1 = 7$	$7 \times 6 = 42$
$7 \times 2 = 14$	$7 \times 7 = 49$
$7 \times 3 = 21$	$7 \times 8 = 56$
$7 \times 4 = 28$	$7 \times 9 = 63$

You can use a 2s and a 5s fact to find a 7s fact.

Find 7×5 .

a. Find the 2s fact with 5: $2 \times 5 = 10$.

b. Find the 5s fact with 5: $5 \times 5 = 25$.

c. Add the products: $10 + 25 = 35$.

Find each product.

1. 2×7

2. 6×7

3. 7×9

4. 6×4

5. 6×8

6. 7×7

7. 6×2

8. 8×7

9. 3×7

10. 6×6

11.
$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

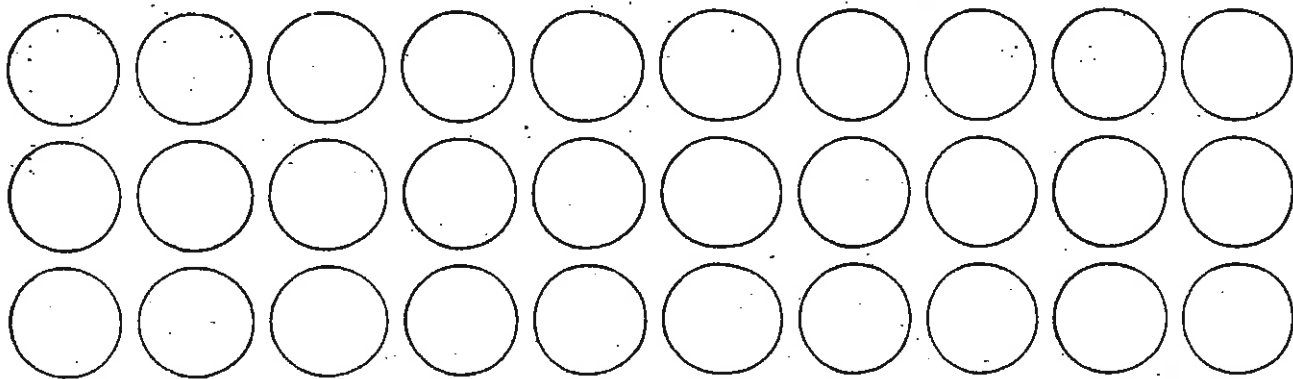
13.
$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

15. **Number Sense** Harold says, "To find 6×8 , I can use the facts for 5×4 and 1×4 ." Do you agree? Explain.
- _____
- _____

100 Chart with Skip Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



6 and 7 as Factors

You can use multiplication facts that you already know to find other multiplication facts.

6s Facts

$6 \times 0 = 0$	$6 \times 5 = 30$
$6 \times 1 = 6$	$6 \times 6 = 36$
$6 \times 2 = 12$	$6 \times 7 = 42$
$6 \times 3 = 18$	$6 \times 8 = 48$
$6 \times 4 = 24$	$6 \times 9 = 54$

You can use a 3s fact to find a 6s fact. Find the 3s fact and then add the product to itself.

Find 6×9 .

- Find the 3s fact with 9: $3 \times 9 = 27$.
- Add the product to itself: $27 + 27 = 54$.

7s Facts

$7 \times 0 = 0$	$7 \times 5 = 35$
$7 \times 1 = 7$	$7 \times 6 = 42$
$7 \times 2 = 14$	$7 \times 7 = 49$
$7 \times 3 = 21$	$7 \times 8 = 56$
$7 \times 4 = 28$	$7 \times 9 = 63$

You can use a 2s and a 5s fact to find a 7s fact.

Find 7×5 .

- Find the 2s fact with 5: $2 \times 5 = 10$.
- Find the 5s fact with 5: $5 \times 5 = 25$.
- Add the products: $10 + 25 = 35$.

Find each product.

- 2×7
- 6×7
- 7×9
- 6×4
- 6×8

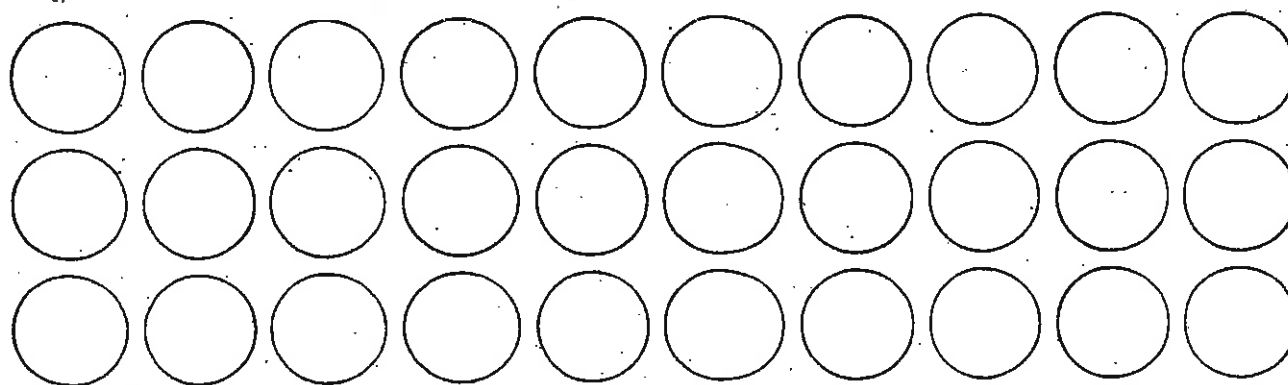
- 7×7
- 6×2
- 8×7
- 3×7
- 6×6

- $$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$
- $$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$
- $$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$
- $$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

15. **Number Sense** Harold says, "To find 6×8 , I can use the facts for 5×4 and 1×4 ." Do you agree? Explain.

100 Chart with SKIP Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



8 as a Factor

You can double a 4s fact to multiply with 8.

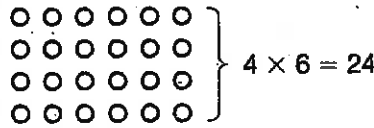
8s Facts

$8 \times 0 = 0$	$8 \times 5 = 40$
$8 \times 1 = 8$	$8 \times 6 = 48$
$8 \times 2 = 16$	$8 \times 7 = 56$
$8 \times 3 = 24$	$8 \times 8 = 64$
$8 \times 4 = 32$	$8 \times 9 = 72$

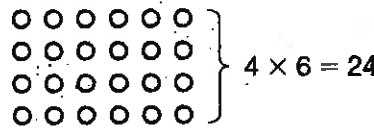
Find 8×6 .

a. Find $4 \times 6 = 24$.

b. Add the product to itself: $24 + 24 = 48$



$24 + 24 = 48$



So, $8 \times 6 = 48$.

Find each product.

1. 2×8

2. 4×8

3. 8×5

4. 9×7

5. 8×8

6. 0×8

7. 6×7

8. 9×8

9. 1×8

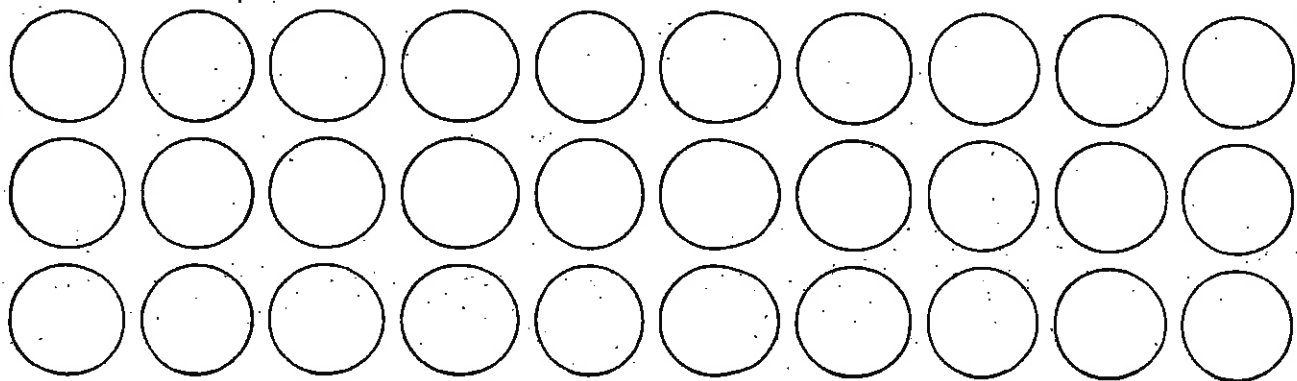
10. 6×8

11. A gallon is equal to 8 pints. How many pints are in 5 gallons?

12. **Writing to Explain** How can you use 4s facts to find 7×8 ?
Give the product in your explanation.

100 Chart with Skip Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Name _____

9 as a Factor

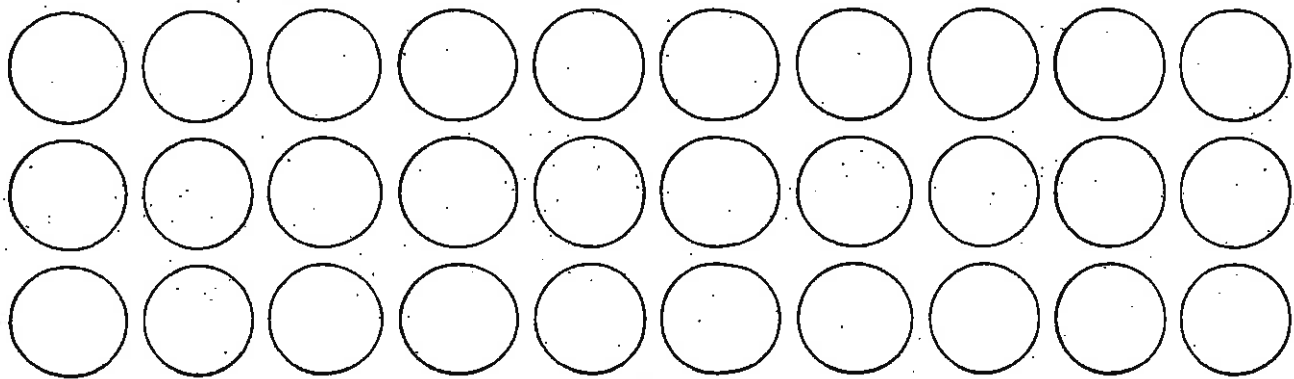
Facts Table

9s Facts	
If I Know	Then I Know
$0 \times 9 = \underline{\quad}$	$9 \times 0 = \underline{\quad}$
$1 \times 9 = \underline{\quad}$	$9 \times 1 = \underline{\quad}$
$2 \times 9 = \underline{\quad}$	$9 \times 2 = \underline{\quad}$
$3 \times 9 = \underline{\quad}$	$9 \times 3 = \underline{\quad}$
$4 \times 9 = \underline{\quad}$	$9 \times 4 = \underline{\quad}$
$5 \times 9 = \underline{\quad}$	$9 \times 5 = \underline{\quad}$
$6 \times 9 = \underline{\quad}$	$9 \times 6 = \underline{\quad}$
$7 \times 9 = \underline{\quad}$	$9 \times 7 = \underline{\quad}$
$8 \times 9 = \underline{\quad}$	$9 \times 8 = \underline{\quad}$
$9 \times 9 = \underline{\quad}$	$9 \times 9 = \underline{\quad}$

Interactive Learning
Recording Sheet 10

100 Chart with Skip Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



10

Name _____

10 as a Factor

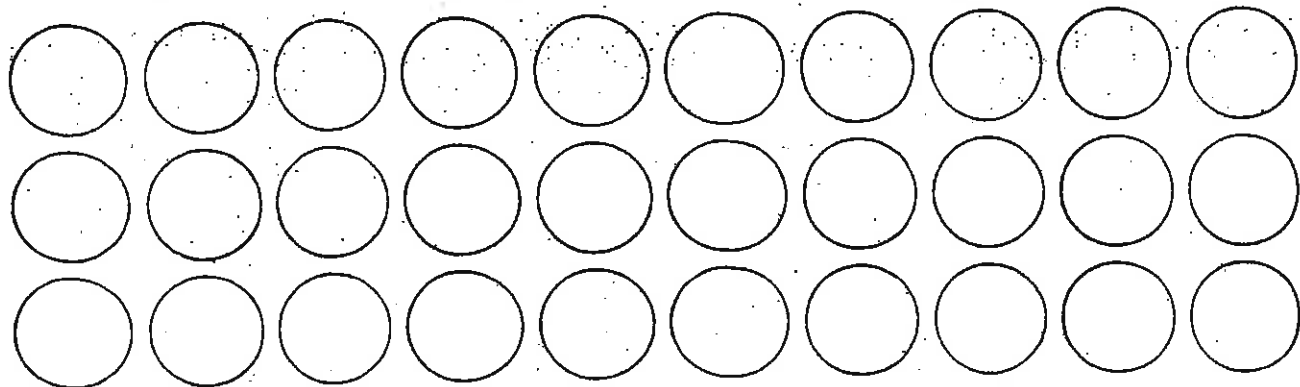
Facts Table

$0 \times \underline{\quad} = \underline{\quad}$
$1 \times \underline{\quad} = \underline{\quad}$
$2 \times \underline{\quad} = \underline{\quad}$
$3 \times \underline{\quad} = \underline{\quad}$
$4 \times \underline{\quad} = \underline{\quad}$
$5 \times \underline{\quad} = \underline{\quad}$
$6 \times \underline{\quad} = \underline{\quad}$
$7 \times \underline{\quad} = \underline{\quad}$
$8 \times \underline{\quad} = \underline{\quad}$
$9 \times \underline{\quad} = \underline{\quad}$
$10 \times \underline{\quad} = \underline{\quad}$

Interactive Learning
Recording Sheet 9

100 Chart with Skip Counting Circles

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



11 and 12 as Factors

You can break apart numbers to multiply by 2-digit numbers.

To multiply by 11:

Think of 11 as $10 + 1$.

$$2 \times 11 = (2 \times 10) + (2 \times 1) = 22$$

$$3 \times 11 = (3 \times 10) + (3 \times 1) = 33$$

$$4 \times 11 = (4 \times 10) + (4 \times 1) = 44$$

$$5 \times 11 = (5 \times 10) + (5 \times 1) = 55$$

$$6 \times 11 = (6 \times 10) + (6 \times 1) = 66$$

$$7 \times 11 = (7 \times 10) + (7 \times 1) = 77$$

$$8 \times 11 = (8 \times 10) + (8 \times 1) = 88$$

$$9 \times 11 = (9 \times 10) + (9 \times 1) = 99$$

$$10 \times 11 = (10 \times 10) + (10 \times 1) = 110$$

$$11 \times 11 = (11 \times 10) + (11 \times 1) = 121$$

$$12 \times 11 = (12 \times 10) + (12 \times 1) = 132$$

To multiply by 12:

Think of 12 as $10 + 2$.

$$2 \times 12 = (2 \times 10) + (2 \times 2) = 24$$

$$3 \times 12 = (3 \times 10) + (3 \times 2) = 36$$

$$4 \times 12 = (4 \times 10) + (4 \times 2) = 48$$

$$5 \times 12 = (5 \times 10) + (5 \times 2) = 60$$

$$6 \times 12 = (6 \times 10) + (6 \times 2) = 72$$

$$7 \times 12 = (7 \times 10) + (7 \times 2) = 84$$

$$8 \times 12 = (8 \times 10) + (8 \times 2) = 96$$

$$9 \times 12 = (9 \times 10) + (9 \times 2) = 108$$

$$10 \times 12 = (10 \times 10) + (10 \times 2) = 120$$

$$11 \times 12 = (11 \times 10) + (11 \times 2) = 132$$

$$12 \times 12 = (12 \times 10) + (12 \times 2) = 144$$

Use patterns to find each product.

1. $2 \times 11 = \underline{\quad}$ 2. $8 \times 11 = \underline{\quad}$ 3. $4 \times 11 = \underline{\quad}$ 4. $9 \times 11 = \underline{\quad}$

$2 \times 12 = \underline{\quad}$ $8 \times 12 = \underline{\quad}$ $4 \times 12 = \underline{\quad}$ $9 \times 12 = \underline{\quad}$

5.
$$\begin{array}{r} 11 \\ \times 6 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 11 \\ \times 10 \\ \hline \end{array}$$

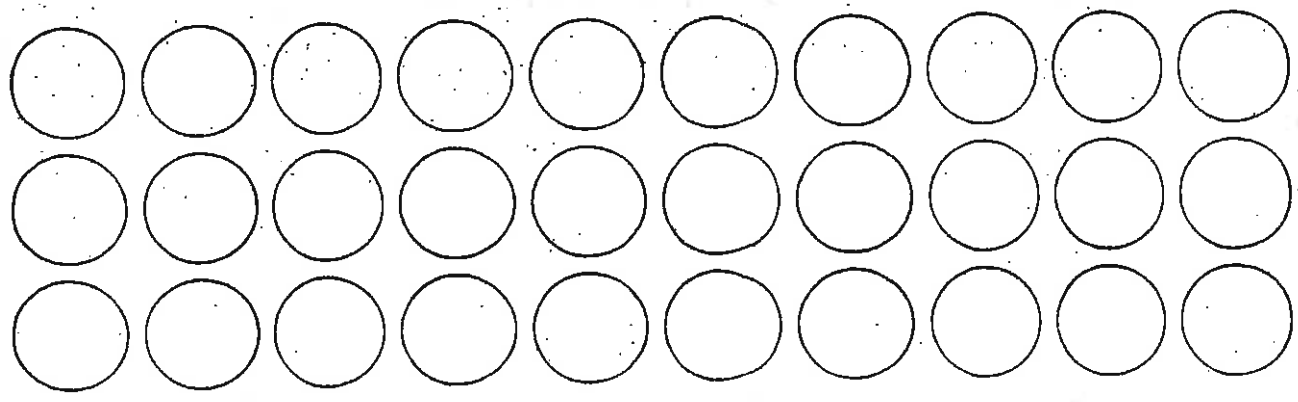
7.
$$\begin{array}{r} 12 \\ \times 10 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 11 \\ \times 11 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 12 \\ \times 12 \\ \hline \end{array}$$

10. **Explain It** How can you use a pattern to find 12×11 ?
Give the product.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



11 and 12 as Factors

You can break apart numbers to multiply by 2-digit numbers.

To multiply by 11:

Think of 11 as $10 + 1$.

$$2 \times 11 = (2 \times 10) + (2 \times 1) = 22$$

$$3 \times 11 = (3 \times 10) + (3 \times 1) = 33$$

$$4 \times 11 = (4 \times 10) + (4 \times 1) = 44$$

$$5 \times 11 = (5 \times 10) + (5 \times 1) = 55$$

$$6 \times 11 = (6 \times 10) + (6 \times 1) = 66$$

$$7 \times 11 = (7 \times 10) + (7 \times 1) = 77$$

$$8 \times 11 = (8 \times 10) + (8 \times 1) = 88$$

$$9 \times 11 = (9 \times 10) + (9 \times 1) = 99$$

$$10 \times 11 = (10 \times 10) + (10 \times 1) = 110$$

$$11 \times 11 = (11 \times 10) + (11 \times 1) = 121$$

$$12 \times 11 = (12 \times 10) + (12 \times 1) = 132$$

To multiply by 12:

Think of 12 as $10 + 2$.

$$2 \times 12 = (2 \times 10) + (2 \times 2) = 24$$

$$3 \times 12 = (3 \times 10) + (3 \times 2) = 36$$

$$4 \times 12 = (4 \times 10) + (4 \times 2) = 48$$

$$5 \times 12 = (5 \times 10) + (5 \times 2) = 60$$

$$6 \times 12 = (6 \times 10) + (6 \times 2) = 72$$

$$7 \times 12 = (7 \times 10) + (7 \times 2) = 84$$

$$8 \times 12 = (8 \times 10) + (8 \times 2) = 96$$

$$9 \times 12 = (9 \times 10) + (9 \times 2) = 108$$

$$10 \times 12 = (10 \times 10) + (10 \times 2) = 120$$

$$11 \times 12 = (11 \times 10) + (11 \times 2) = 132$$

$$12 \times 12 = (12 \times 10) + (12 \times 2) = 144$$

Use patterns to find each product.

1. $2 \times 11 = \underline{\quad}$ 2. $8 \times 11 = \underline{\quad}$ 3. $4 \times 11 = \underline{\quad}$ 4. $9 \times 11 = \underline{\quad}$

$2 \times 12 = \underline{\quad}$ $8 \times 12 = \underline{\quad}$ $4 \times 12 = \underline{\quad}$ $9 \times 12 = \underline{\quad}$

5.
$$\begin{array}{r} 11 \\ \times 6 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 11 \\ \times 10 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 12 \\ \times 10 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 11 \\ \times 11 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 12 \\ \times 12 \\ \hline \end{array}$$

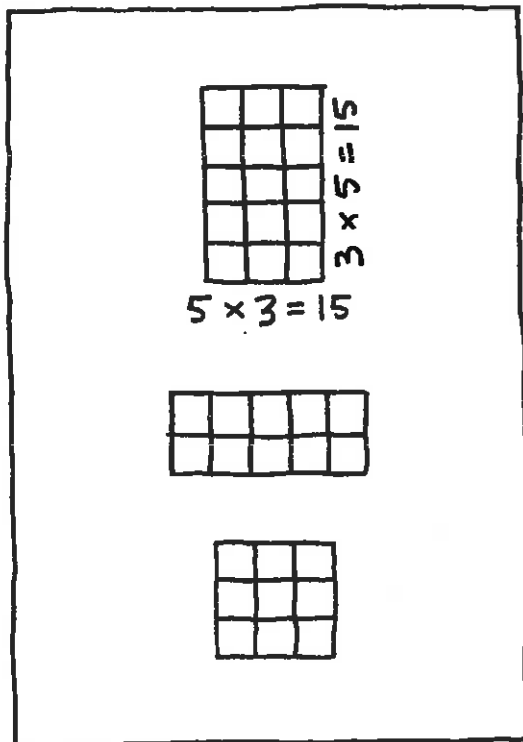
10. **Explain It** How can you use a pattern to find 12×11 ?
Give the product.

Name _____



Rows of Squares

Make rectangles and then describe them two ways.



Directions

- 1 Shade a rectangle on the grid paper. Then cut the rectangle from the grid paper.
- 2 Paste the rectangle on a blank piece of paper.
- 3 Write a multiplication fact below the rectangle that describes the number of rows and the number of squares in each row. Include the product.
- 4 Turn the paper 90° to the right and write the fact that describes the rectangle in that position. Include the product.
- 5 Make as many rectangles and pairs of facts with their products to describe them as you can.

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Multiples of Three

Find as many patterns as you can in the multiples of 3. These patterns can help you remember the multiplying-3 facts.

Directions

- ① Shade the squares that contain multiples of 3. Color lightly so that you can still see the number.
- ② On a separate piece of paper, write about the patterns you see.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Name _____

Date _____

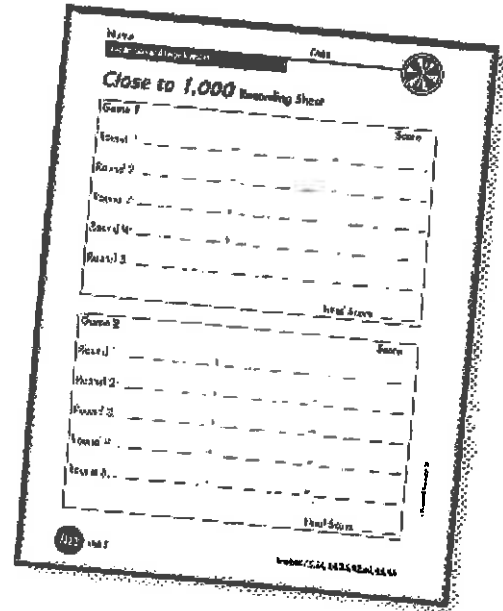
Landmarks and Large Numbers



Close to 1,000

You need

- Digit Cards (1 deck per pair)
- Close to 1,000 Recording Sheet



Play with a partner.

- 1 Deal out eight Digit Cards to each player.
- 2 Use any six cards to make two numbers. For example, a 6, a 5, and a 2 could make 652, 625, 526, 562, 256, or 265. Wild cards can be used as any digit. Try to make two numbers that, when added together, give you a total that is close to 1,000.
- 3 Write these numbers and their total on the *Close to 1,000* Recording Sheet. For example, $652 + 347 = 999$.
- 4 Find your score. Your score is the difference between your total and 1,000.
- 5 Put the cards you used in a discard pile. Keep the two cards you did not use for the next round.
- 6 For the next round, deal six cards to each player. Make more numbers that have a sum close to 1,000.
- 7 When you run out of cards, mix up the discard pile and use them again.
- 8 After five rounds, add your scores to find your final score. The player with the lower final score wins.

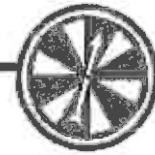
Variation

Write the score with plus and minus signs to show whether your total is less than or greater than 1,000. For example, if your total is 999, your score is -1 . If your total is 1,005, your score is $+5$. The total of these two scores is $+4$. Your goal is to get a final score for five rounds that is as close to 0 as possible.

Name _____

Date _____

Landmarks and Large Numbers



Close to 1,000 Recording Sheet

Game 1	Score
Round 1: _____ + _____ = _____	_____
Round 2: _____ + _____ = _____	_____
Round 3: _____ + _____ = _____	_____
Round 4: _____ + _____ = _____	_____
Round 5: _____ + _____ = _____	_____
Final Score _____	

Game 2	Score
Round 1: _____ + _____ = _____	_____
Round 2: _____ + _____ = _____	_____
Round 3: _____ + _____ = _____	_____
Round 4: _____ + _____ = _____	_____
Round 5: _____ + _____ = _____	_____
Final Score _____	

Multiplication

S Q U A R E S

How to Play

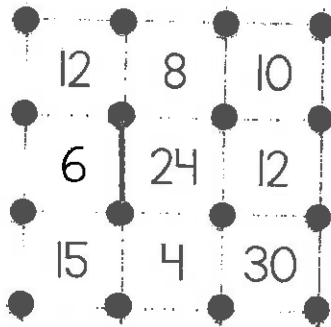
Preparation and Materials:

1. Print out the Multiplication Squares board. You will need one board per game.
 - **PAPER-SAVING TIP:** Laminate the board and use thin dry erase markers to play. That way, students can erase their marks and use the same board each time.
2. Get 2 dice.
3. Get a different colored marker for each player.

Object of the Game: To be the player who captures the most squares.

Playing the Game:

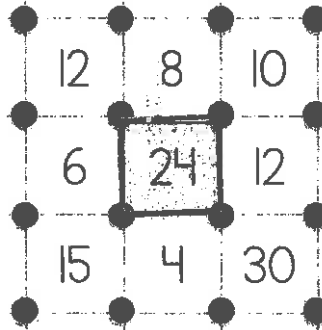
1. Each player rolls one dice. The player with the highest roll goes first.
2. The player rolls both of the dice on the table and multiplies the two numbers together. For example, if the player rolls 6 and 4, he/she multiplies 6 and 4 to get 24.
3. The player looks for the product of the two dice on the squares board, and draws ONE line by connecting any two dots that are surrounding that number, as shown below. The player's marker is used to draw the line between the dots.



For a roll of 6 and 4, the player may find one of the 24s on the squares board. The player may connect any two dots on any side surrounding the 24

How to Play (continued)

4. After the player draws his/her line, that player's turn is over and the next player's turn begins.
5. Players are always striving to draw a line that will complete a square. When one player draws a line that completes a square, that player colors in the square with his/her marker and gets to take another turn with the dice.



The player with the green marker drew the top line that completed the square around the 24 and colored the square green to show that he captured that square.

Note: The player with the green marker could have rolled a product of 8 (above the 24). Because the player's line on the 8 would have completed the 24 square, he still would get to capture the 24 square.

6. If a player rolls a product that has no more available lines left on the board, the player's turn is over and play continues with the next player.
7. The game ends when all dots on the board have been connected (or when the teacher calls time). The player with the most captured squares is the winner.

Multiplication

S Q U A R E S

4	10	24	3	12	4	25	2	15	20
20	30	36	8	15	5	18	30	12	9
18	5	1	24	20	25	6	1	24	8
12	16	25	6	36	3	36	5	4	24
2	9	24	18	12	8	10	4	15	12
5	15	4	30	6	24	12	2	18	3
8	20	36	5	15	4	30	1	3	12
24	6	20	2	18	25	15	6	20	10
3	30	10	30	15	9	6	5	18	4
12	5	16	24	8	3	30	12	10	16

Who will capture the most squares?

Looking to practice multiplication facts through 12? Check out our full 'Squares' version! <http://bit.ly/MultSquares>

