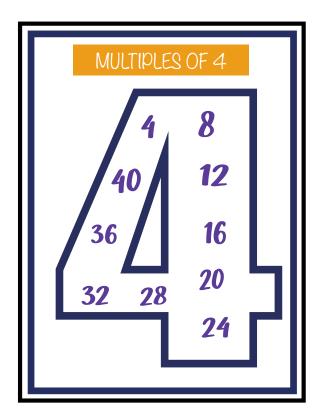
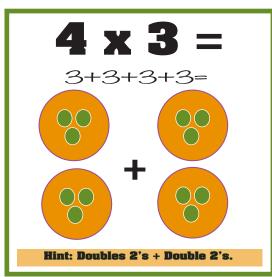
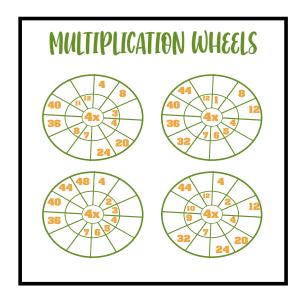
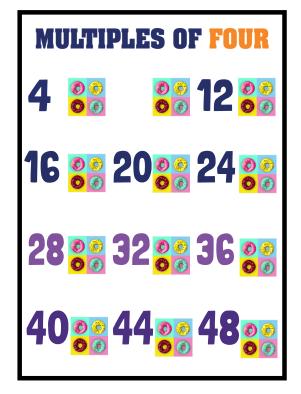
MULTIPLYING by

WORK BOOKLET



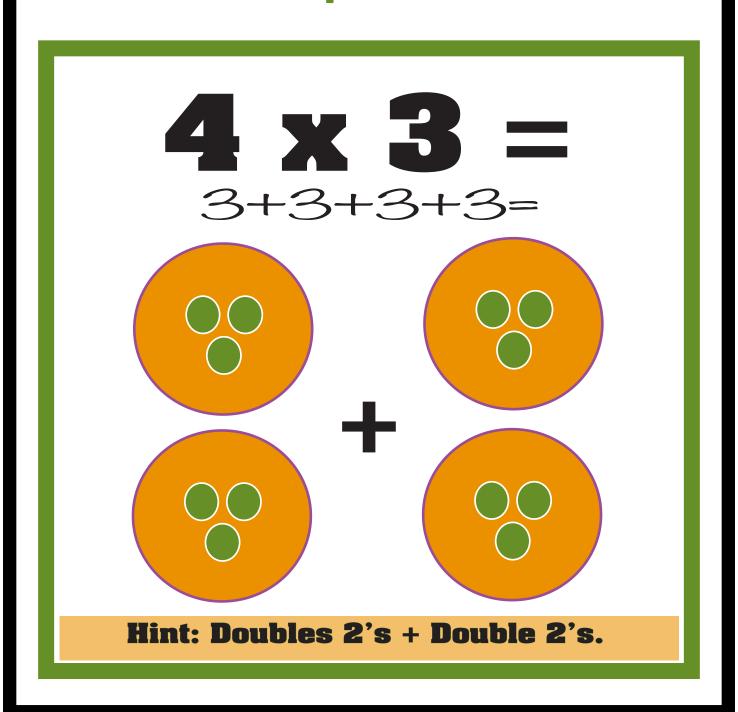




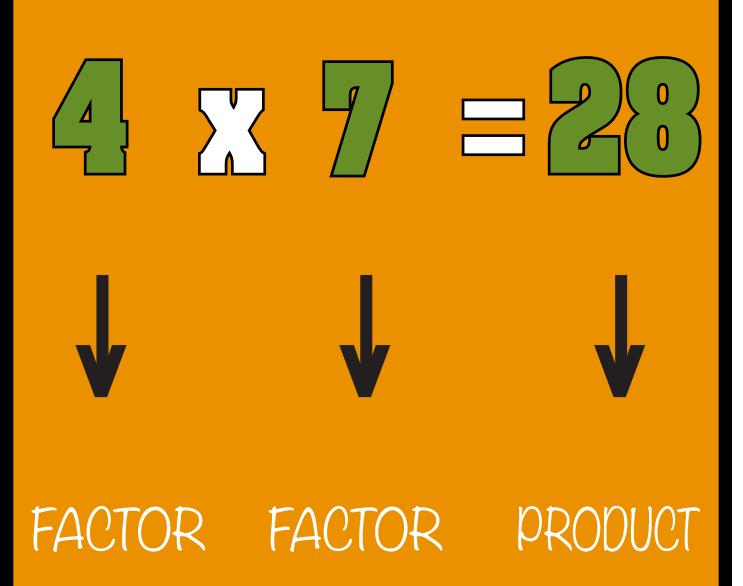


STRATEGY POSTER

When multiplying by 4 Double 2's plus Double 2's



MULTIPLICATION



LES OF FO









200 24













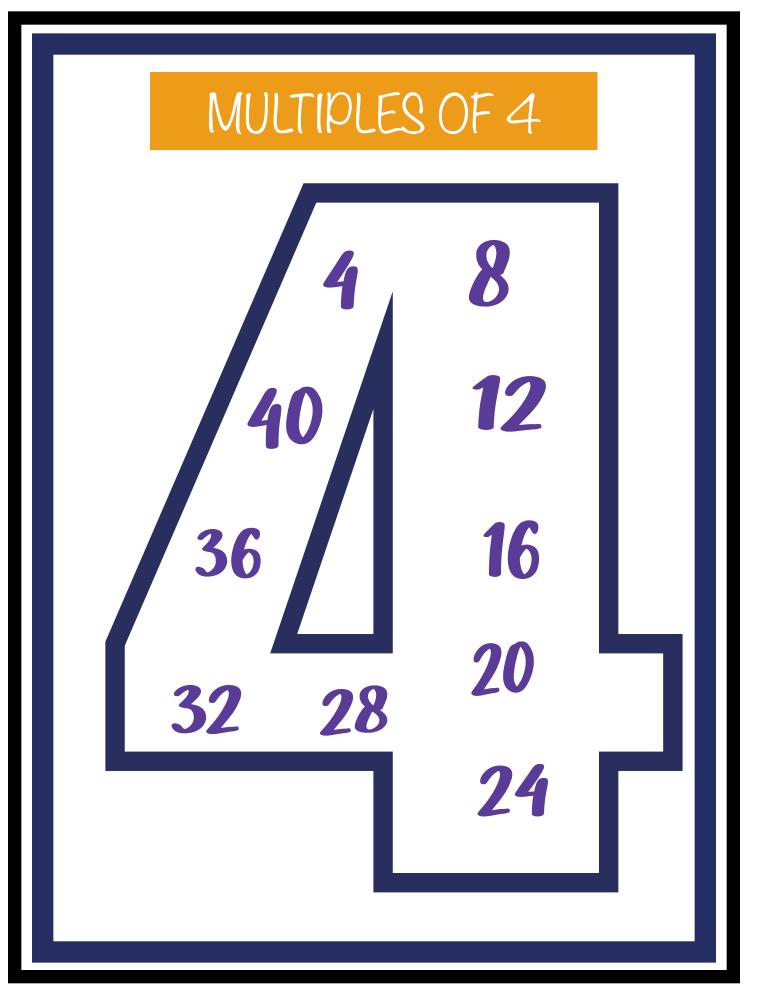




MULTIPLES OF FOUR 16 * 20 * 24 * 28 * 32 * 36 * * 44 * 48

PICTURING THE MATH

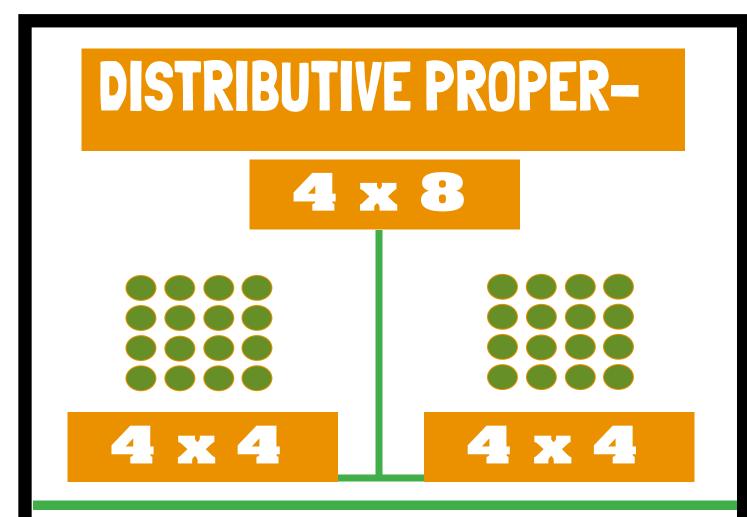
GROUP	COUNT BY SEQUENCE	MULTIPLICATION EQUATION
If you have 2 boxes of donuts with 4 donuts in each box, how many donuts would you have?	4, 8	2 x 4 = 8
If you have 6 boxes of donuts with 4 donuts in each box, how many donuts would you have?	4, 8, 12, 16, 24	6 x 4 = 24
If you have 8 boxes of donuts with 4 donuts in each box,how many donuts would you have?		
If you have 4 boxes of donuts with 4 donuts in each box, how many donuts would you have?		
If you have 10 boxes of donuts with 4 donuts in each box, how many donuts would you have?		





COMMUTATIVE PROPERTY

MODEL THE FACTS





There are other to ways to model this as well.

ASSOCIATIVE PROPER-

4 x 2 x 3 4 x 6 or 3 x 8

MODEL THE FACTS

4 x l x 4	= x
4 x 4 x 4	
4 x 2 x 4	
Those are everyles. The	

These are examples. There are other answers.

FREE CHOICE

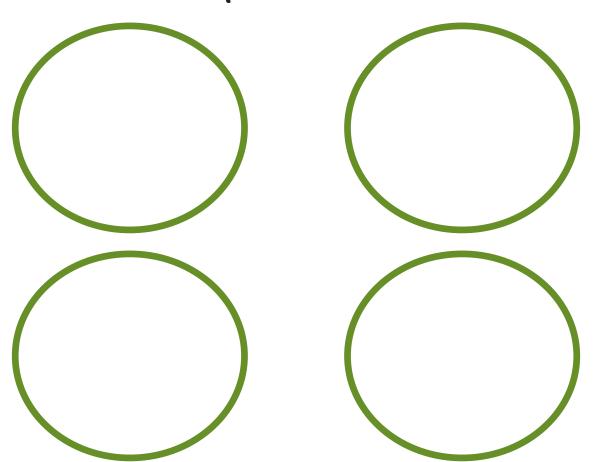
X	X	Ж

ZERO PROPERTY

When you multiply by zero you get zero...

Zero groups of anything is zero

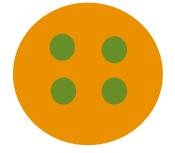
4 groups of 0 is 0



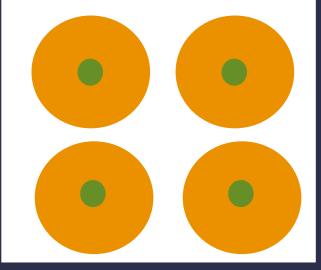
IDENTITY PROPERTY

When you multiply by 1... you get that number

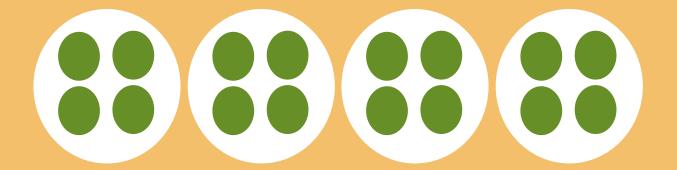
1 group of 4 is 4



4 groups of 1 is 4



Modeling Multiplication DRAW EQUAL GROUPS



4 X 4

4 X I 4

4 X 2

4 X 3

4 X 4

Modeling Multiplication DRAW EQUAL GROUPS

4 X 5

4 X 6

4 X 7

4 X 8

4 X 9

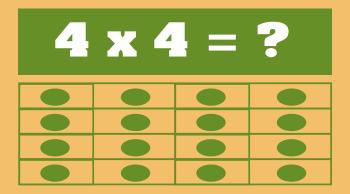
4 X 10

FREE CHOICE

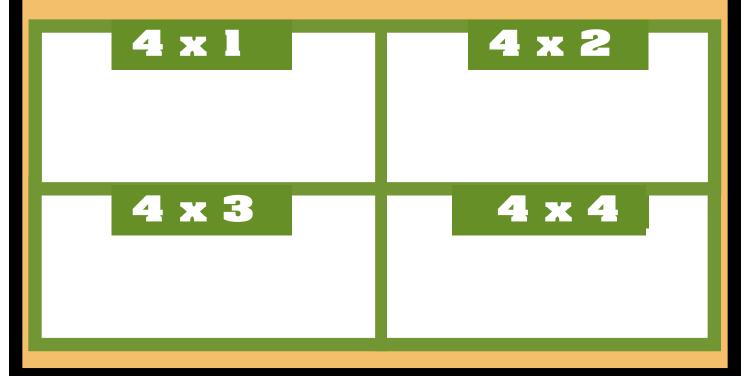
FREE CHOICE

Modeling Multiplication DRAW AN ARRAY

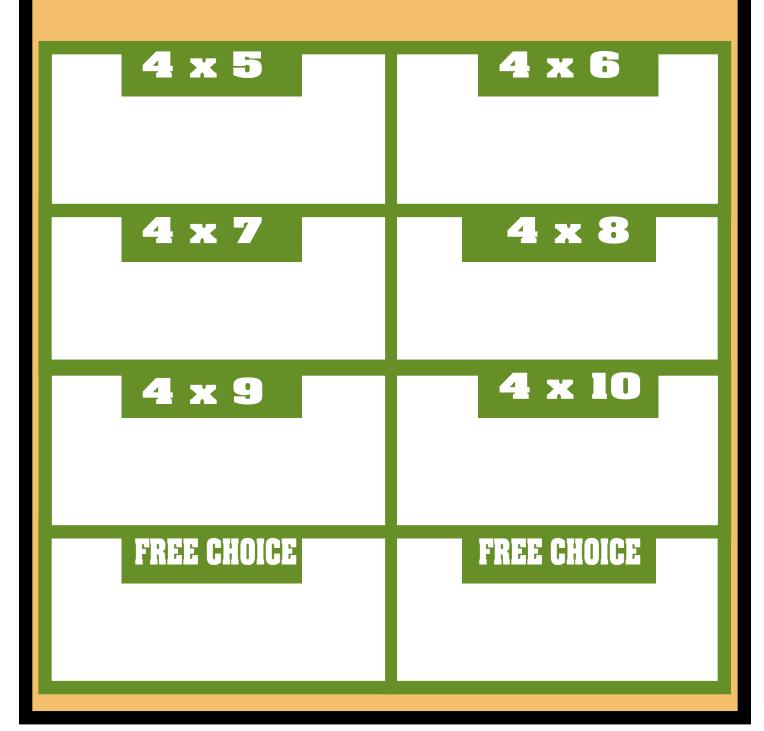
4 groups of 4



DRAW AN ARRAY



Modeling Multiplication DRAW AN ARRAY



Multiplication Strategies:

REPEATED ADDITION

4 groups of 4

4 + 4 + 4 + 4= 16



 $4 \times 4 = 16$

MODEL THE REPEATED ADDITION SENTENCE

Multiplication Strategies:

FREE CHOICE

FREE CHOICE

DRAW ON A NUMBER LINE

4 8 12 16 20 24 28 32 36 40

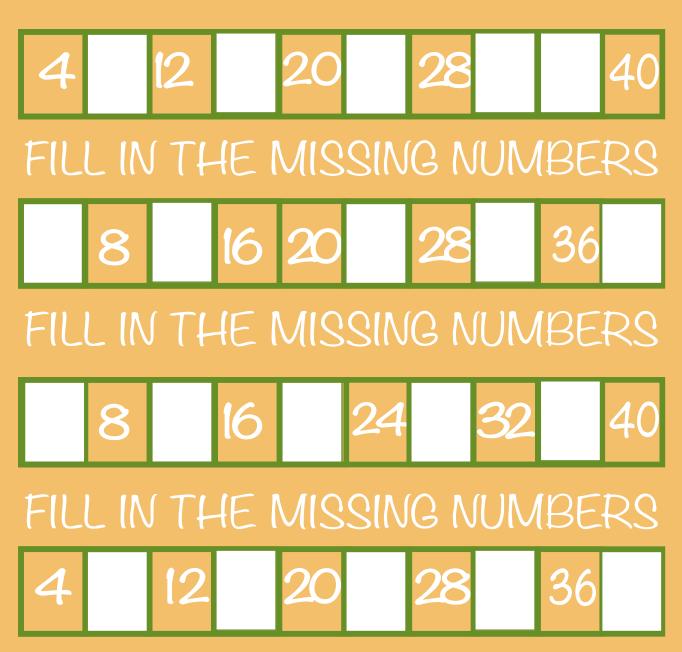
4 12 24 28 32 40

FILL IN THE MISSING NUMBERS

4 12 20 28 40

12 20 28 40

FILL IN THE MISSING NUMBERS



FILL IN THE MISSING NUMBERS. MODEL 4 x 1 ON THE NUMBER LINE



FILL IN THE MISSING NUMBERS. MODEL 4 x 2 ON THE NUMBER LINE



FILL IN THE MISSING NUMBERS. MODEL 4 x 3 ON THE NUMBER LINE



Modeling Multiplication SKIP HITT

FILL IN THE MISSING NUMBERS, MODEL 4 x 4 ON THE NUMBER LINE



FILL IN THE MISSING NUMBERS. MODEL 4 x 5 ON THE NUMBER LINE



FILL IN THE MISSING NUMBERS. MODEL 4 x 6 ON THE NUMBER LINE



FILL IN THE MISSING NUMBERS. MODEL 4 x 7 ON THE NUMBER LINE



FILL IN THE MISSING NUMBERS. MODEL 4 x 8 ON THE NUMBER LINE



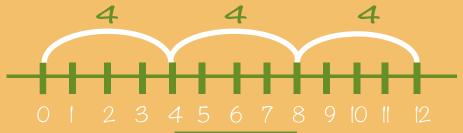
FILL IN THE MISSING NUMBERS. MODEL 4 x 9 ON THE NUMBER LINE



FILL IN THE MISSING NUMBERS. MODEL 4 x 10 ON THE NUMBER LINE



Multiplication Strategies:



4 x 3

SOLVE THE PROBLEM ON THE NUMBER LINE













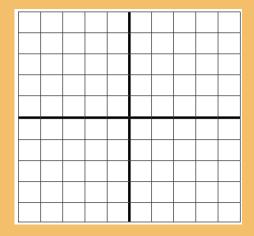




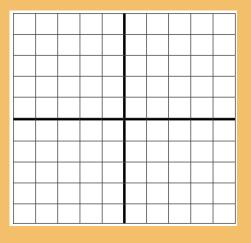




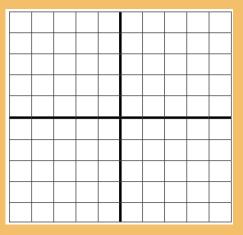
OBLEMS ON THE GRIDS.



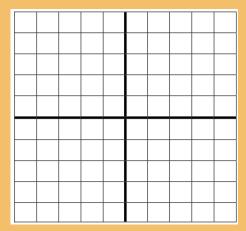




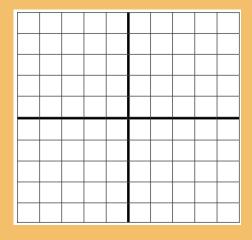




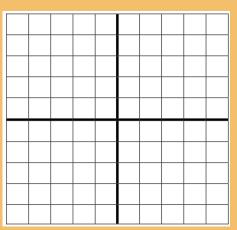
MODEL THE PROBLEMS ON THE GRIDS.



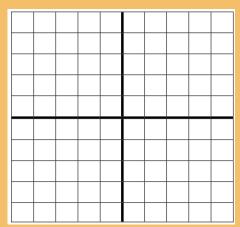


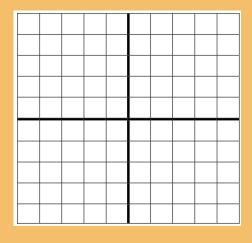




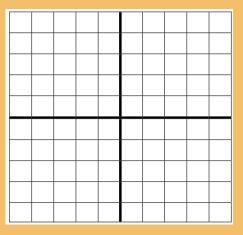


OBLEMS ON THE GRIDS.





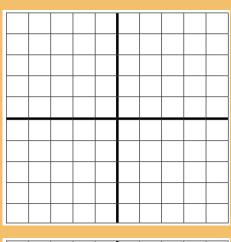


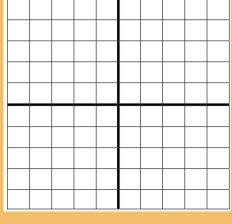


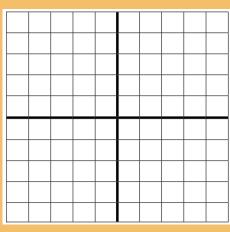
MODEL THE PROBLEMS ON THE GRIDS.

FREE CHOICE

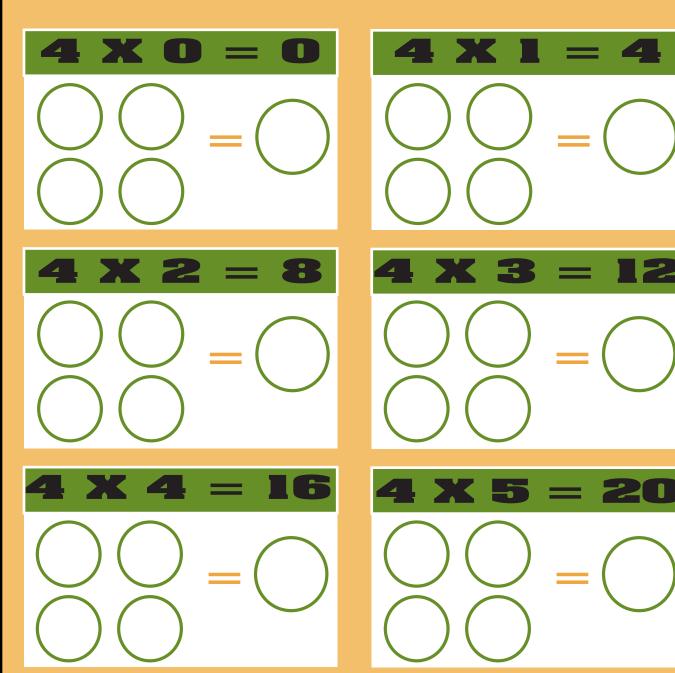
FREE CHOICE





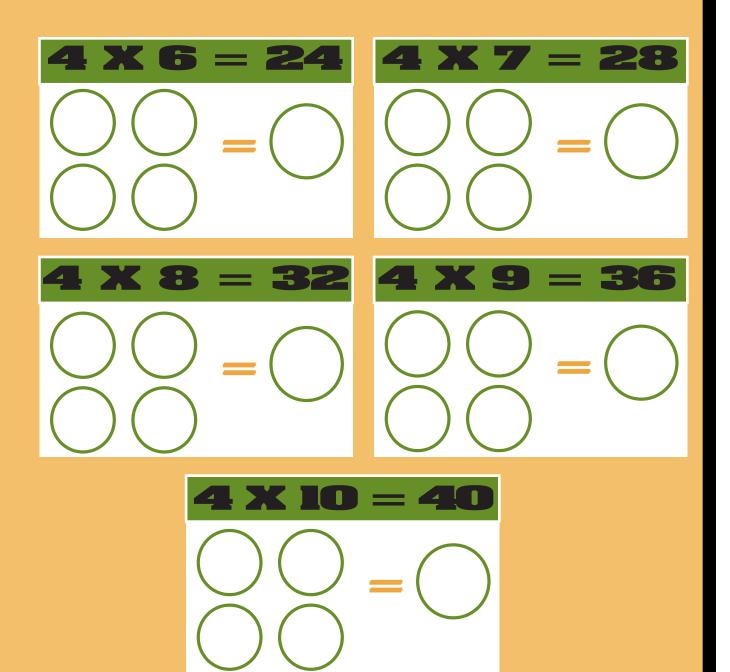


Equal Group Flashcards



Equal Group Flashcards

MAKE YOUR OWN EQUAL GROUP FLASHCARDS. DRAW EQUAL GROUPS TO MODEL THE PROBLEM.



Regular Flashcards

Regular Flashcards

4 x 6

4 x 7

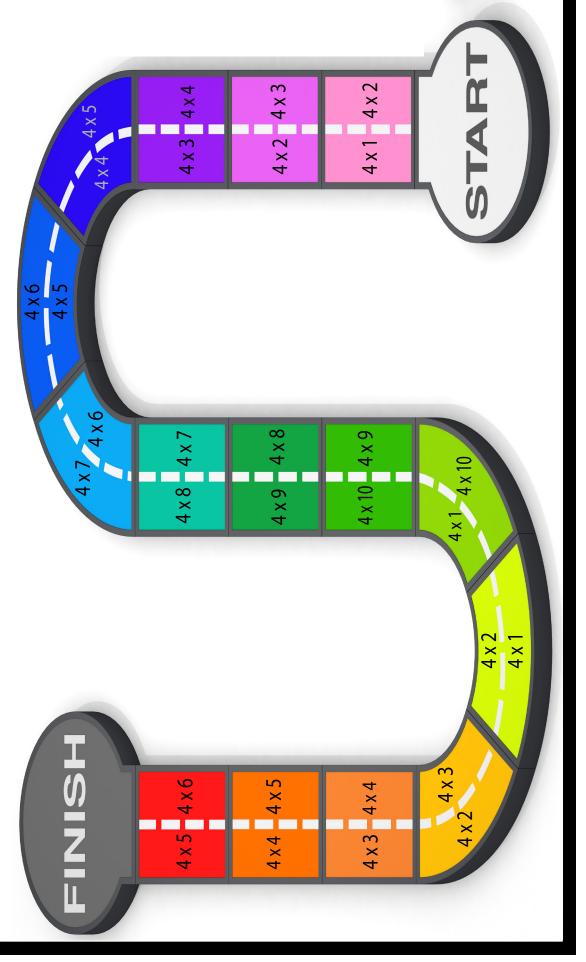
4 x 8

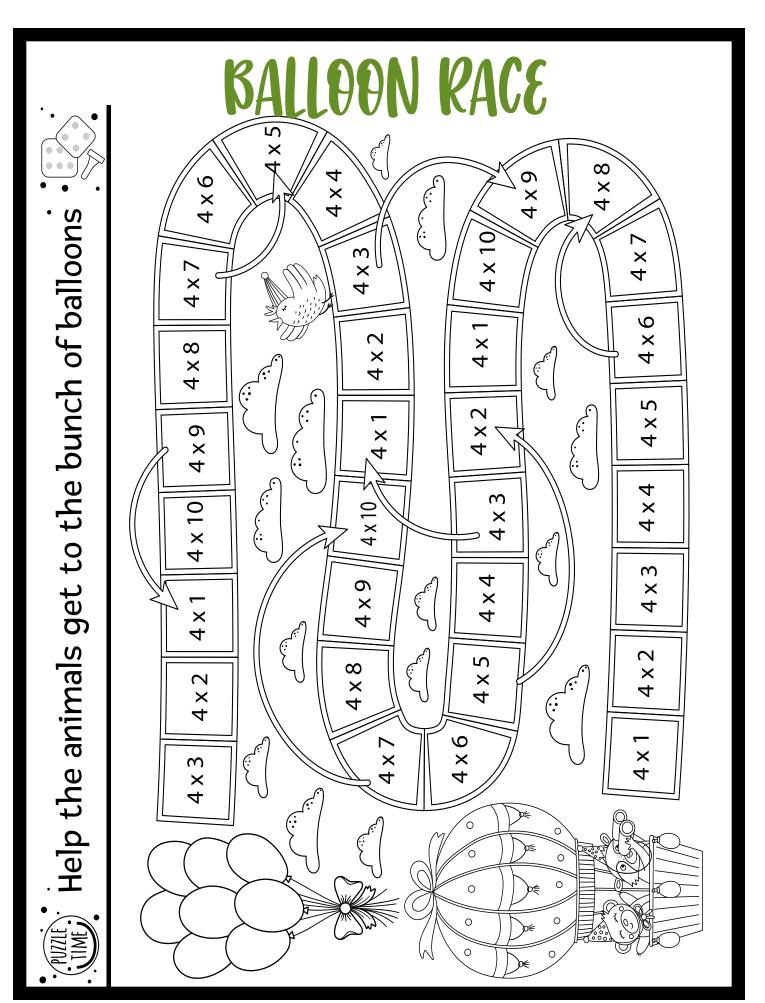
4 x 9

4 x 10

MULTIPLICATION RACE

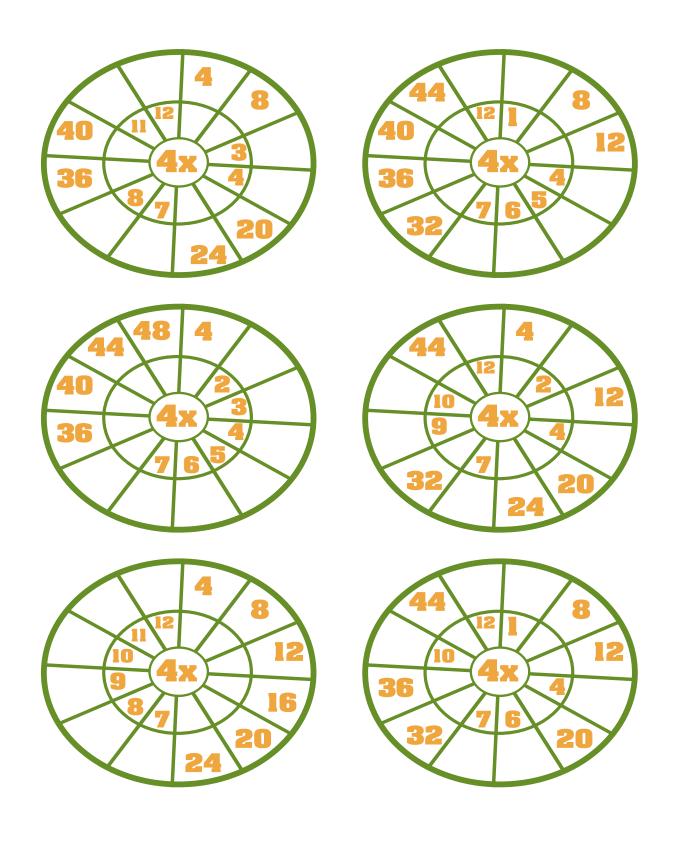
Directions: Play with a partner. Each player chooses a marker and a side. Decide who starts. Roll the die. Take turns moving, Player 1 says the product. Player 2 checks the answer using the bookmark. If it is correct, stay on the spot. If it is incorrect, move back one. Whoever reaches first wins.



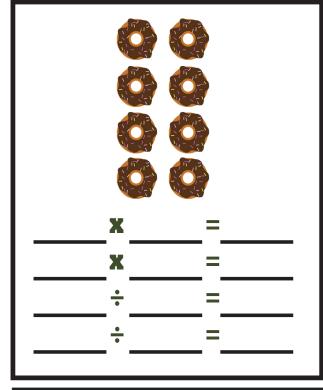


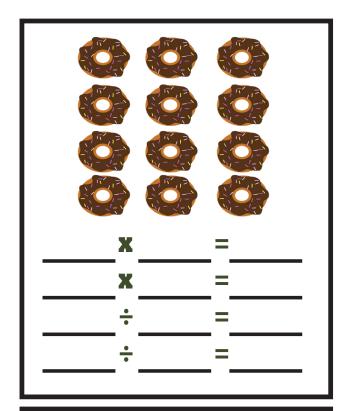
MULTIPLICATION WHEELS

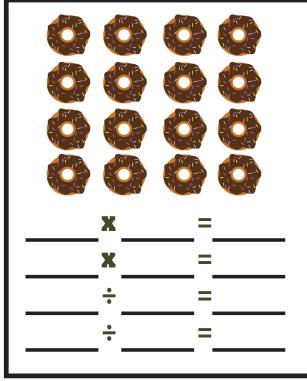
MULTIPLICATION WHEELS

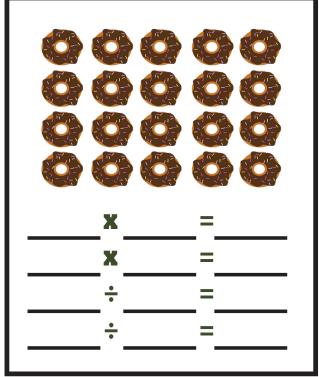


PICTURE FACT FAMILY

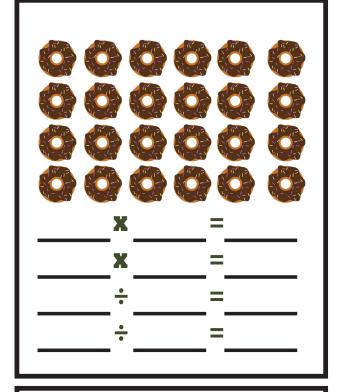




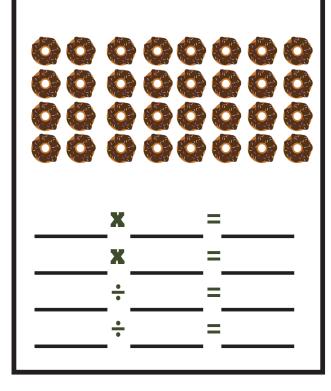


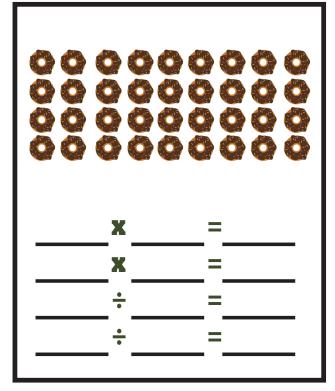


PICTURE FACT FAMILY

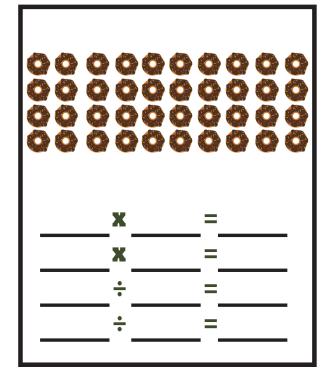


	17/12		17 17	1,7,2	
	11/12			1,7	
	-10-1	- 0-		1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	
	x _		_=_		
_	_x _x		_=_ _=_		_
			-=- -=- -=-		_
			-=. -=. -=.		_

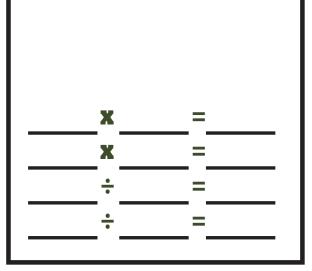


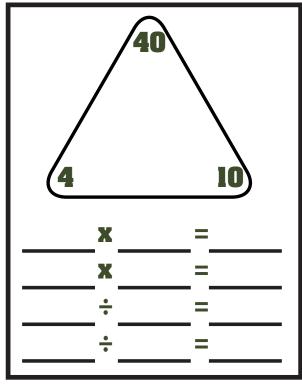


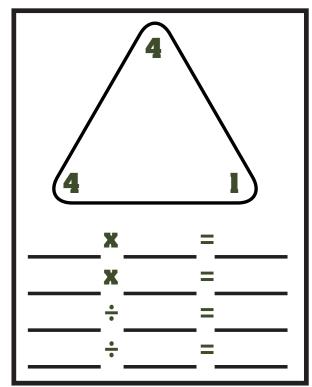
PICTURE FACT FAMILY

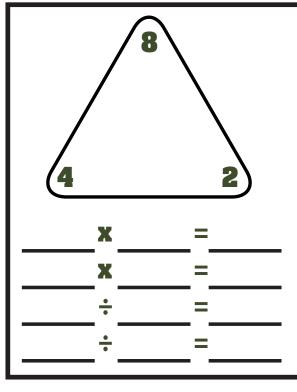


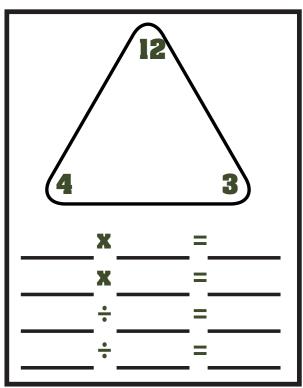
MAKE YOUR OWN

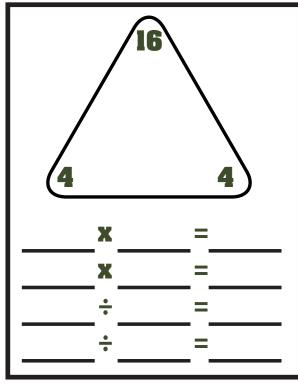


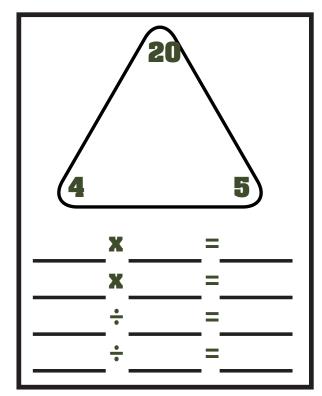


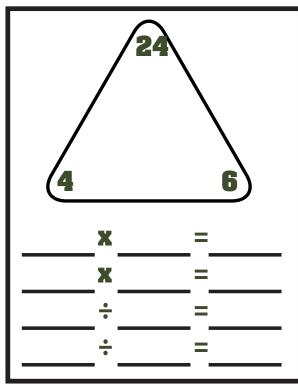


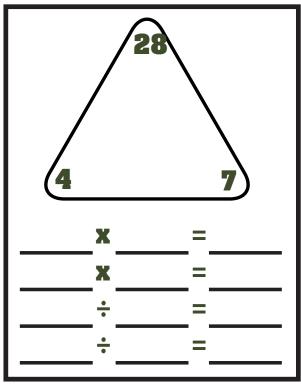


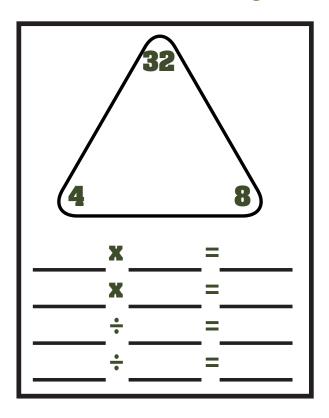


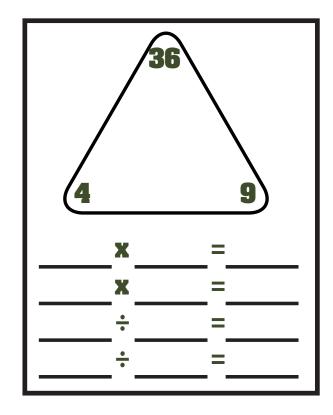


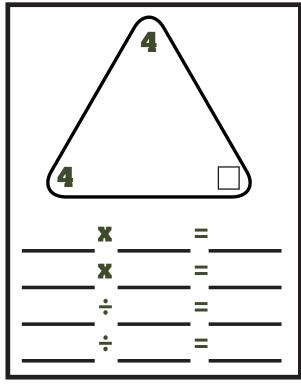


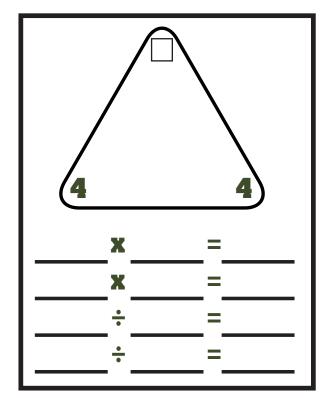


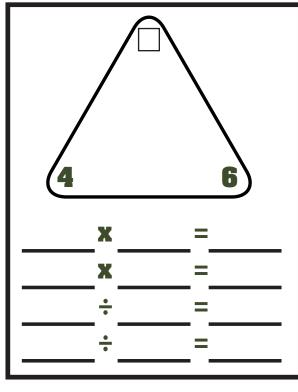


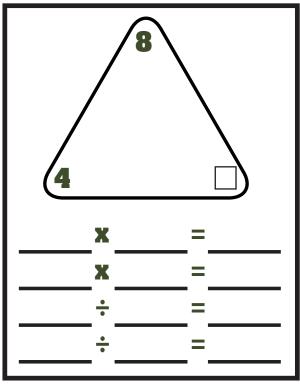


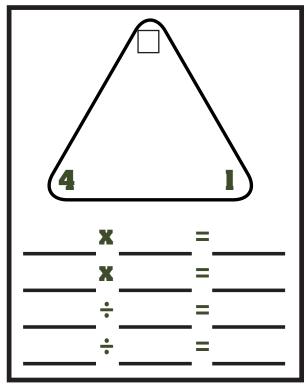


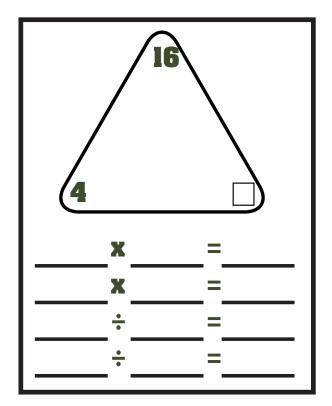


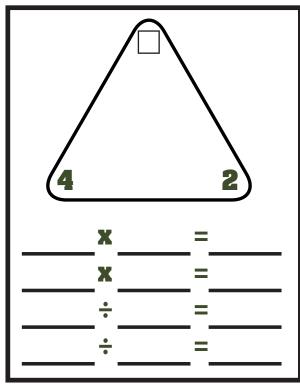












MAKA AKARIEM

THE BAKERY HAD 4 ROWS OF DONUTS. THERE WERE 4 DONUTS IN EACH ROW. HOW MANY DONUTS DID THEY HAVE ALTOGETHER?

THE BAKERY HAD 4 BOXES WITH 8 DONUTS IN EACH BOX. HOW MANY DONUTS DID THEY HAVE?

X

X

THERE WERE 4 BAGS OF DONUTS IN THE BAKERY. EACH BAG HAD 3 DONUTS INSIDE. HOW MANY **DONUTS WERE THERE** ALTOGETHER?

THE BAKERY HAD 4 BOXES OF DONUTS WITH 10 DONUTS IN EACH BOX. HOW MANY DONUTS DID THEY HAVE ALTOGETHER?

X

X



WRITE A 4'S FACT IN EACH BOX. THEN FOLLOW THE INSTRUCTIONS IN EACH BOX TO MATCH THE FACT.

I CAN SKIP COUNT BY 4'S!	

I CAN REPRESENT 4'S WITH EQUAL GROUPS!

I CAN REPRESENT 4'S WITH ARRAYS!

I CAN REPRESENT 4'S ON THE NUMBER LINE.

I CAN USE REPEATED ADDITION FOR MY 4'S.

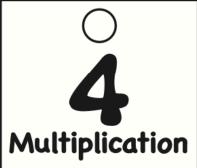
MY STRATEGY FOR THINKING ABOUT 4'S IS...

HAS SUCCESSFULLY PRACTICED THE MATH W 4 TIMES TABLES!

GREAT JOB!

TEACHER:

DATE:



$$4 \times 1 = 4$$

$$4 \times 2 = 8$$

$$4 \times 3 = 12$$

$$4 \times 4 = 16$$

$$4 \times 5 = 20$$

$$4 \times 6 = 24$$

$$4 \times 7 = 28$$

$$4 \times 8 = 32$$

$$4 \times 9 = 36$$

$$4 \times 10 = 40$$

Hint: Doubles 2's + Double 2's



$$4 \times 1 = 4$$

$$4 \times 2 = 8$$

$$4 \times 3 = 12$$

$$4 \times 4 = 16$$

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Hint: Doubles, 2's + Double 2's

MULTIPLICATION

$$4 \times 1 = 4$$

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$$4 \times 9 = 36$$

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Hint: Doubles, 2's + Double 2's