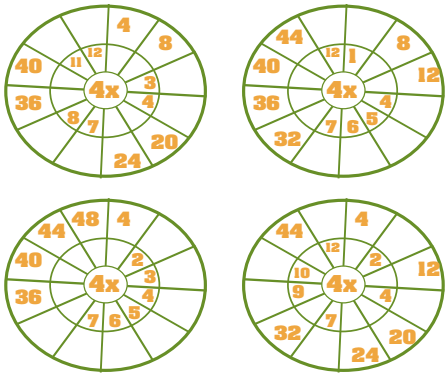
MULTIPLYING by 4

WORK BOOKLET ANSWER KEY

MULTIPLES OF 4

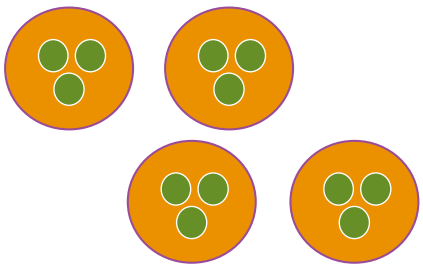
4 8 40 12 36 16 20 32 28 24

MULTIPLICATION WHEELS



4 x 3 =

3+3+3+3=



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

MULTIPLES OF FOUR

4 12 16 20 24 28 32 36 40 44 48

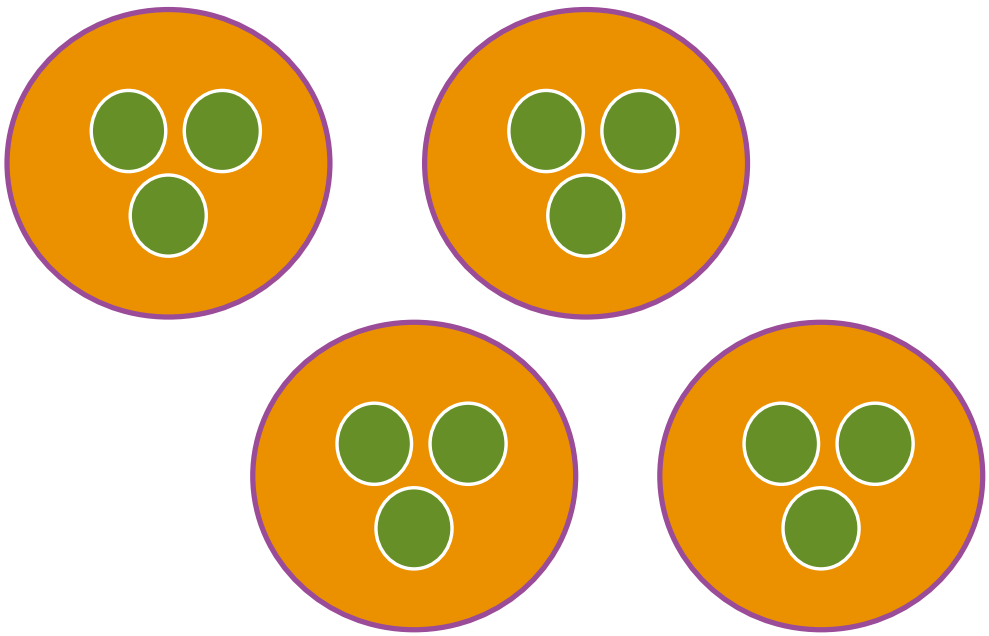
STRATEGY POSTER

When multiplying by 4

Double 2's plus Double 2's

4 x 3 =

3+3+3+3=



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

MULTIPLICATION

$4 \times 7 = 28$



FACTOR FACTOR PRODUCT

MULTIPLES OF FOUR

4 

 12 

16 

20 

24 

28 

32 

36 

40 

44 

48 

MULTIPLES OF FOUR

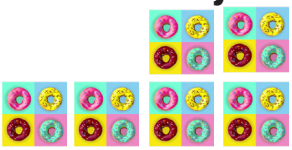
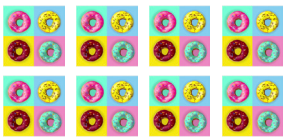
4 8 12

16 20 24

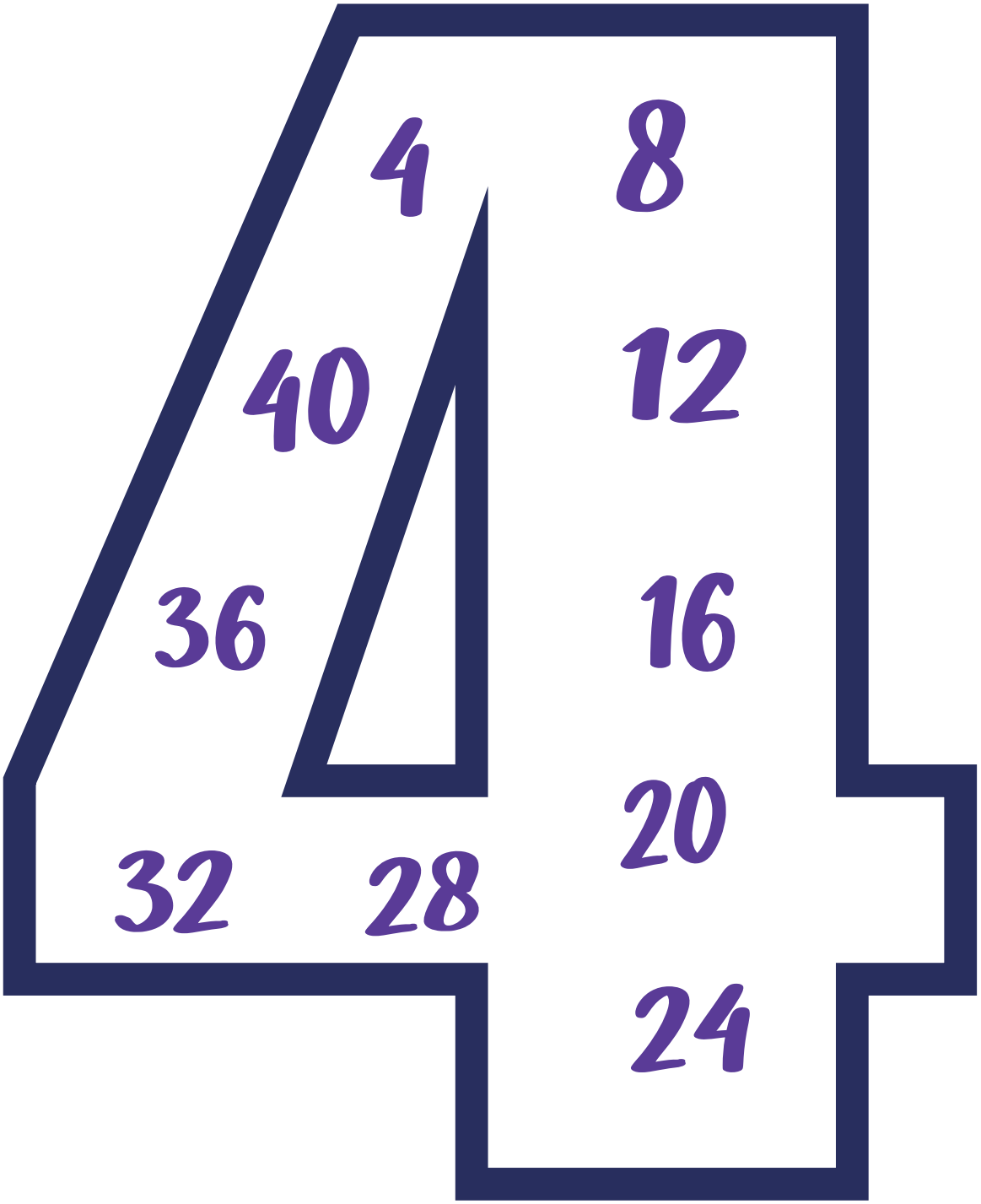
28 32 36

40 44 48

PICTURING THE MATH

GROUP THERE ARE 4 DONUTS IN EACH BOX.	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? 	4,8,12,16, 20,24,28,32	8 x 4 = 32
If you have 4 boxes of donuts with 4 donuts in each box, how many donuts would you have? 	4,8,12,16	4 x 4 = 16
If you have 10 boxes of donuts with 4 donuts in each box, how many donuts would you have? 	4,8,12,16,20, 24,28,32,36,40	10 x 4 = 40

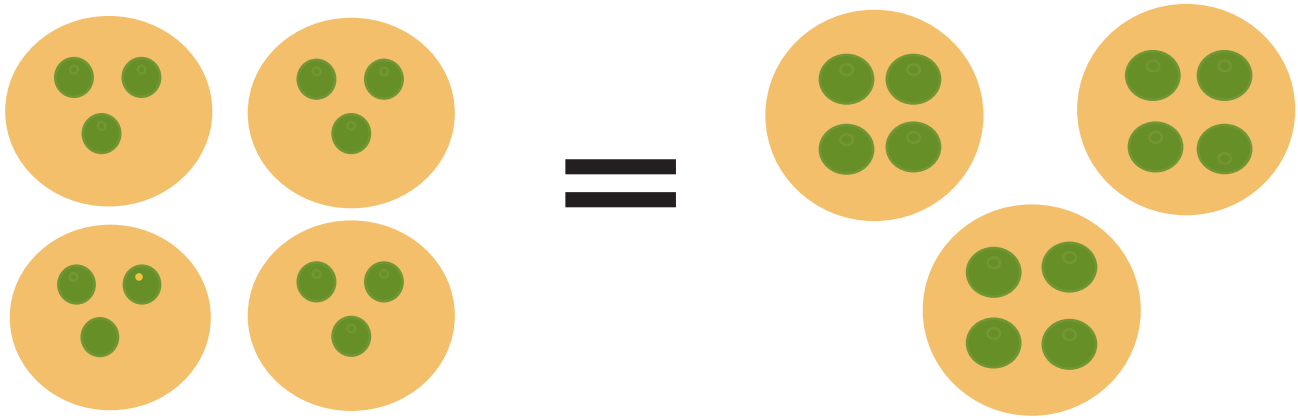
MULTIPLES OF 4



VOCABULARY

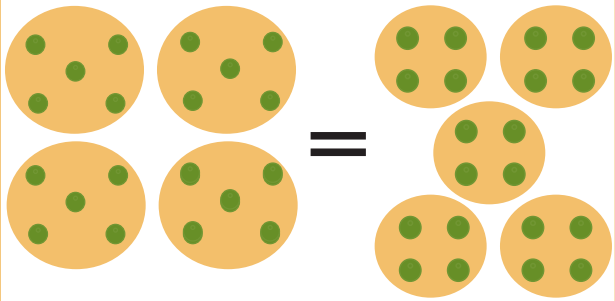
COMMUTATIVE PROPERTY

4 x 3 = 3 x 4

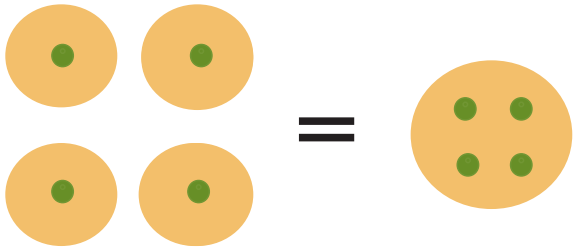


MODEL THE FACTS

4 x 5 = 5 x 4

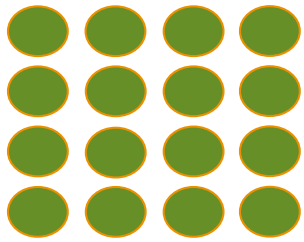


4 x 1 = 1 x 4

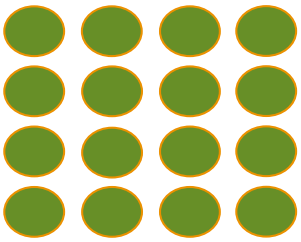


DISTRIBUTIVE PROPERTY

4 x 8



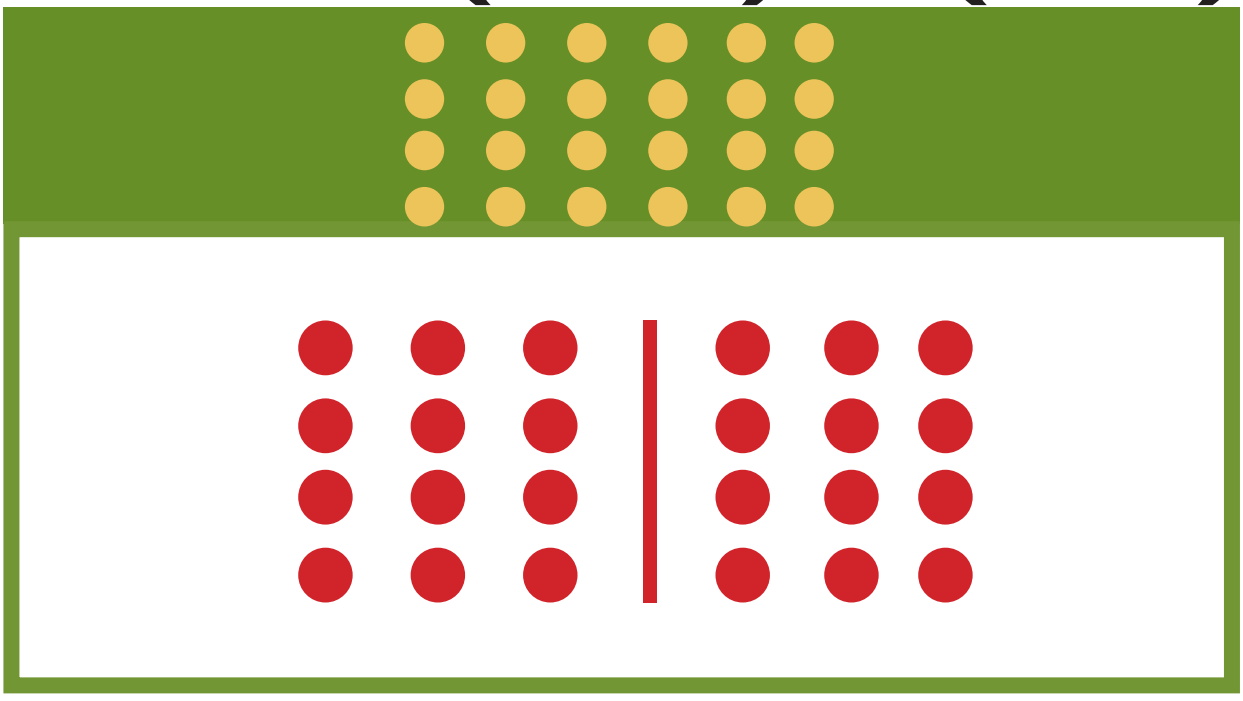
4 x 4



4 x 4

MODEL THE FACTS

4 x 6 = (4x3) + (4x3)



There are other to ways to model this as well.

ASSOCIATIVE PROPER–

4 x 2 x 3

4 x 6 or 3 x 8

MORE EXAMPLES

4 x 1 x 4 = 4 x 4 OR 1 x 16

4 x 4 x 4 = 16 x 4

4 x 2 x 4 = 8 x 4 OR 2 x 16

These are examples. There are other answers.

FREE CHOICE

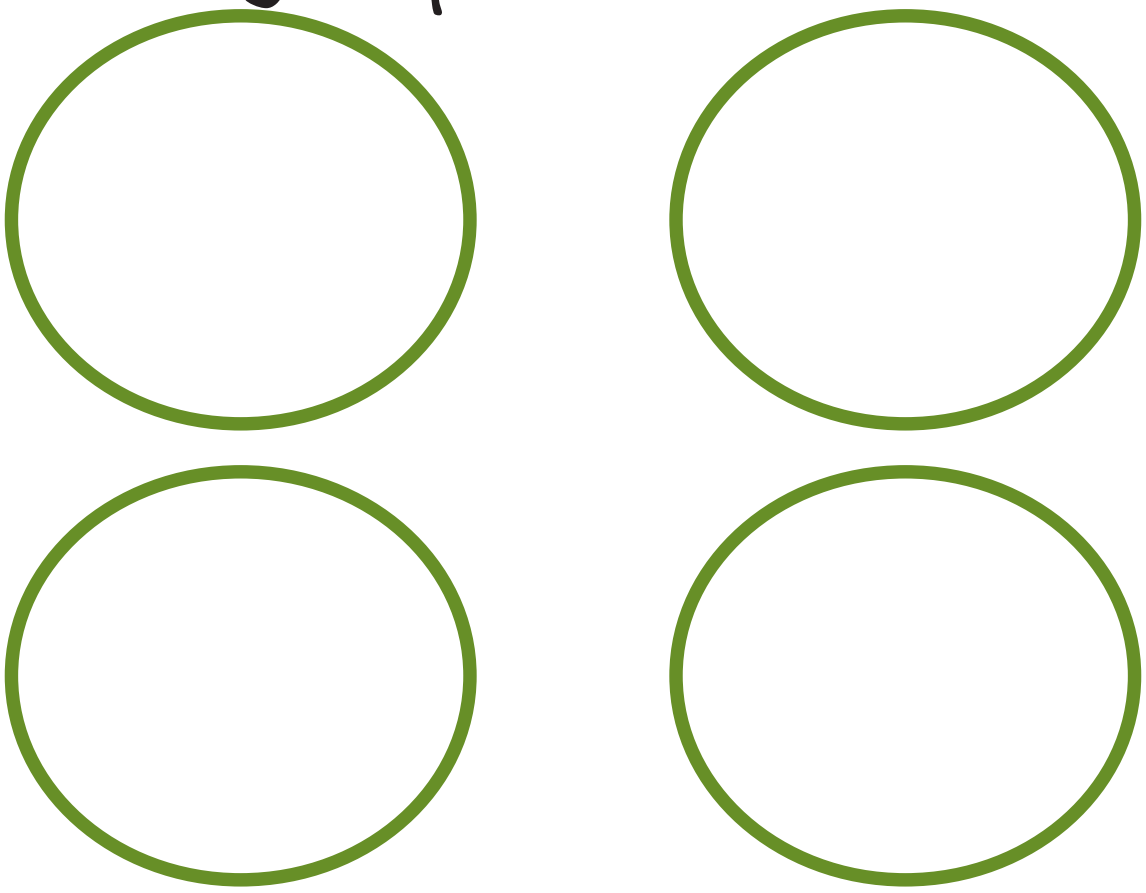
___ x ___ x ___ = ___ x ___

ZERO PROPERTY

When you multiply by zero you get zero...

Zero groups of anything is zero

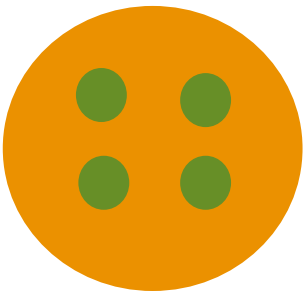
4 groups of **0** is **0**



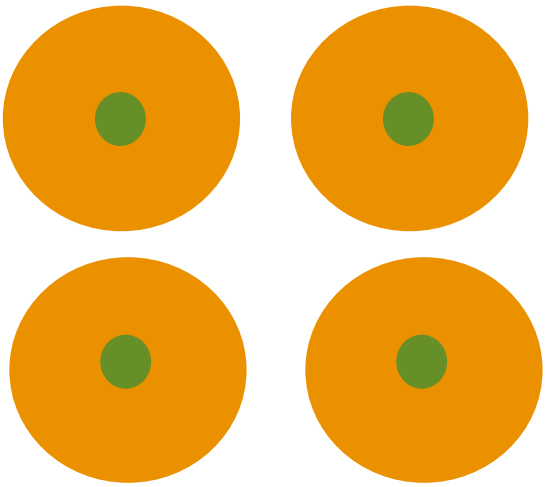
IDENTITY PROPERTY

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

1 group of
4 is 4

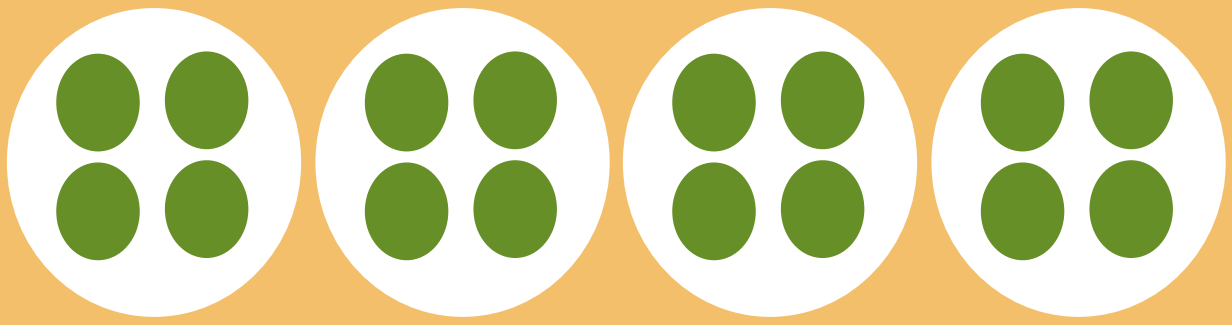


4 groups
of 1 is 4



Modeling Multiplication

DRAW EQUAL GROUPS



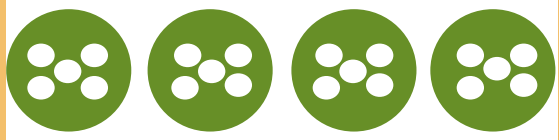
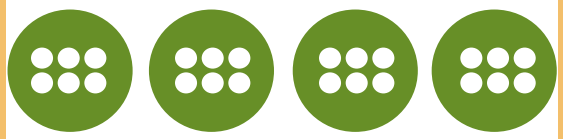
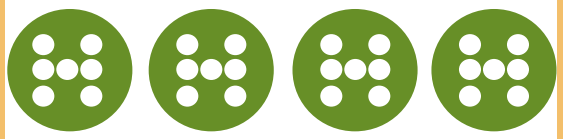
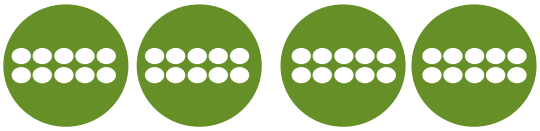
4 X 4

4 X 1	4 X 2
	

4 X 3	4 X 4
	

Modeling Multiplication

DRAW EQUAL GROUPS

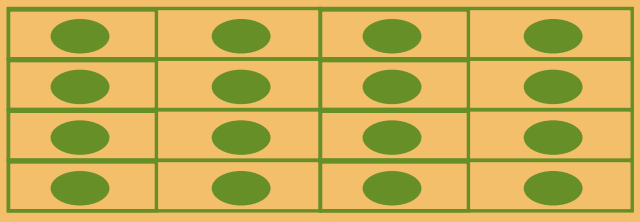
4 X 5	4 X 6
	
4 X 7	**4 X 8**
	
4 X 9	**4 X 10**
	
FREE CHOICE	**FREE CHOICE**

Modeling Multiplication

DRAW AN ARRAY

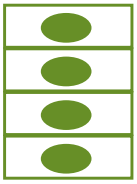
4 groups of 4

4 x 4 = ?

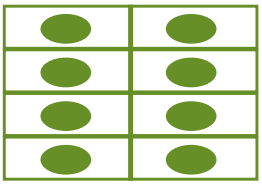


DRAW AN ARRAY

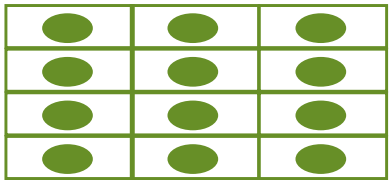
4 x 1



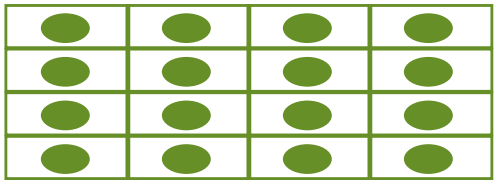
4 x 2



4 x 3



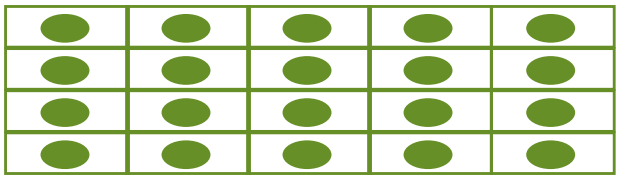
4 x 4



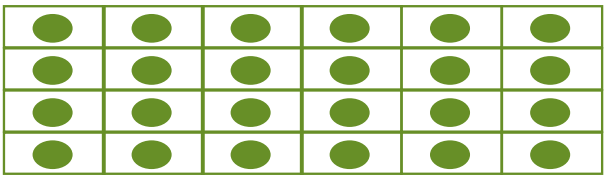
Modeling Multiplication

DRAW AN ARRAY

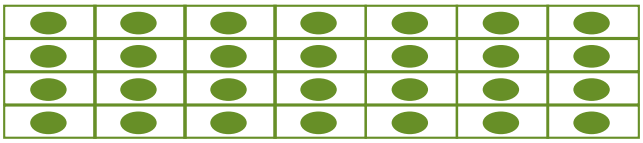
4 x 5



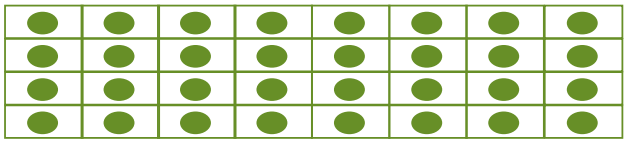
4 x 6



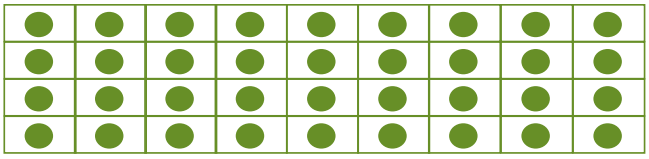
4 x 7



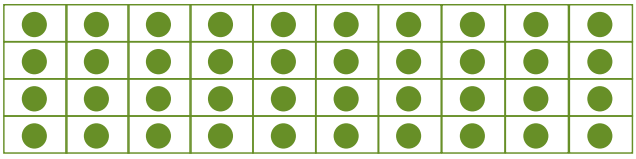
4 x 8



4 x 9



4 x 10



FREE CHOICE

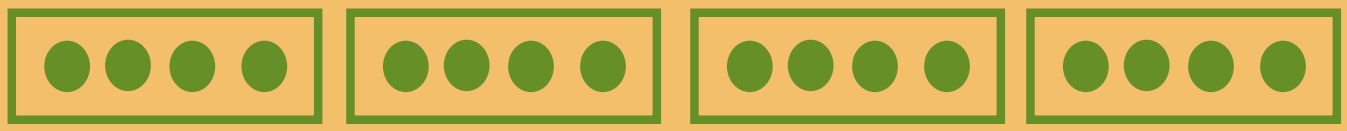
FREE CHOICE

Multiplication Strategies:

REPEATED ADDITION

4 groups of 4

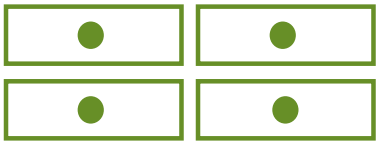
4 + 4 + 4 + 4= 16



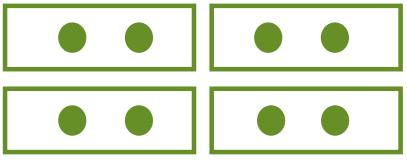
4 x 4 = 16

MODEL THE REPEATED ADDITION SENTENCE

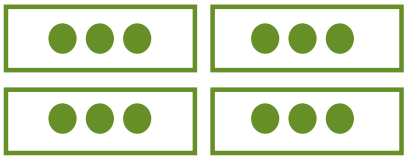
4 x 1
1 + 1 + 1 + 1



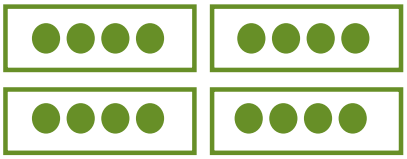
4 x 2
2 + 2 + 2 + 2



4 x 3
3 + 3 + 3 + 3

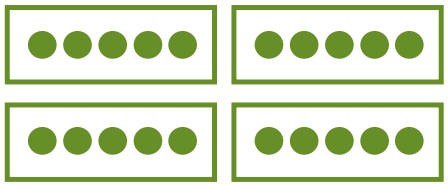
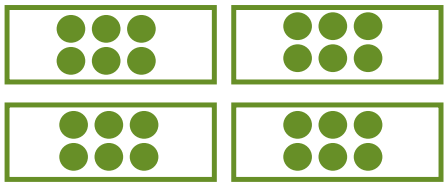
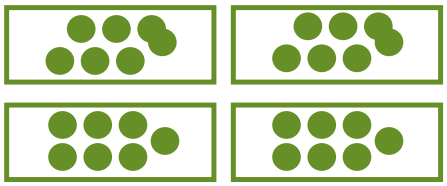
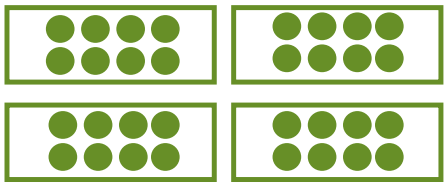
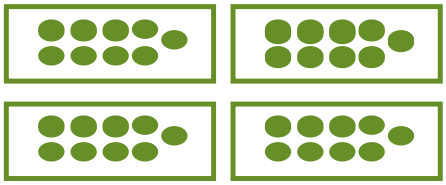
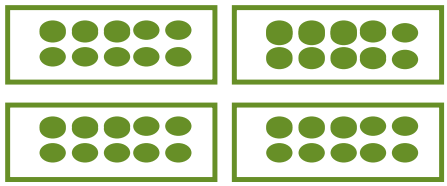


4 x 4
4 + 4 + 4 + 4



Multiplication Strategies:

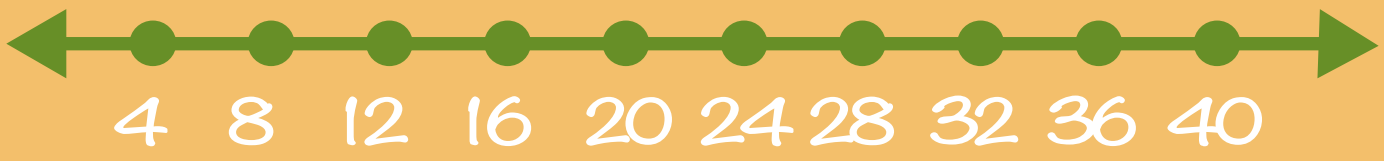
REPEATED ADDITION

4 x 5 5 + 5 + 5 + 5 	**4 x 6** 6 + 6 + 6 + 6 
4 x 7 7 + 7 + 7 + 7 	**4 x 8** 8 + 8 + 8 + 8 
4 x 9 9 + 9 + 9 + 9 	**4 x 10** 10 + 10 + 10 + 10 
FREE CHOICE	**FREE CHOICE**

Modeling Multiplication

SKIP COUNTING

DRAW ON A NUMBER LINE



FILL IN THE MISSING NUMBERS

4	8	12	16	20	24	28	32	36	40

4	8	12	16	20	24	28	32	36	40

Modeling Multiplication

SKIP COUNTING

FILL IN THE MISSING NUMBERS

4	8	12	16	20	24	28	32	36	40

FILL IN THE MISSING NUMBERS

4	8	12	16	20	24	28	32	36	40

FILL IN THE MISSING NUMBERS

4	8	12	16	20	24	28	32	36	40

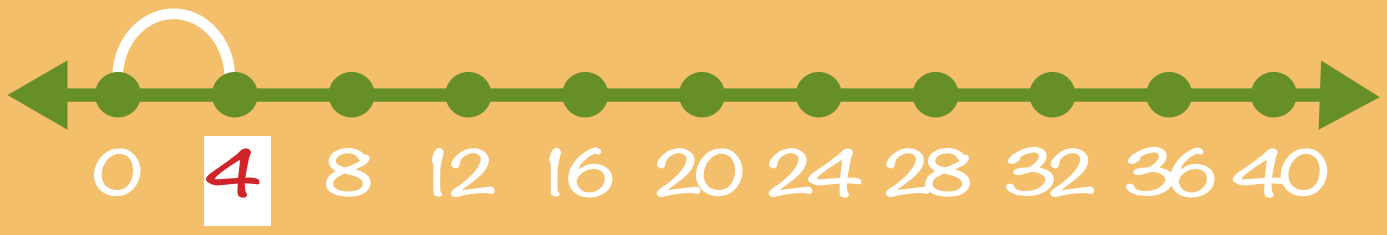
FILL IN THE MISSING NUMBERS

4	8	12	16	20	24	28	32	36	40

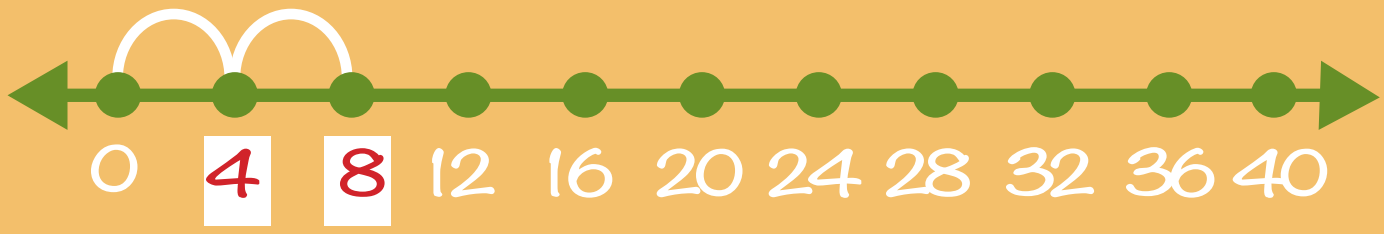
Modeling Multiplication

SKIP COUNTING

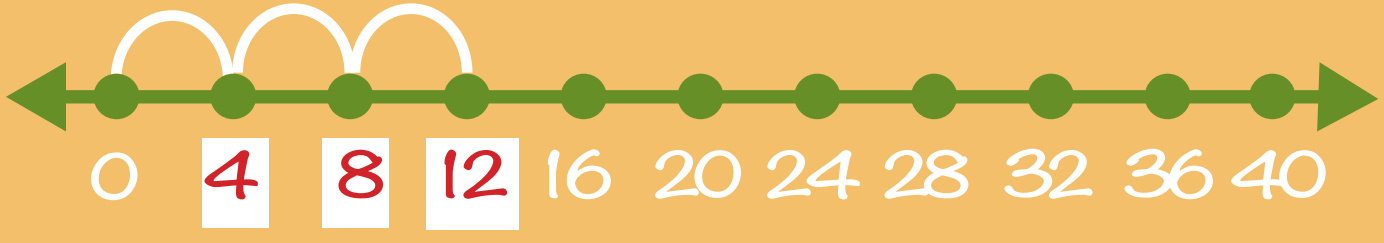
FILL IN THE MISSING NUMBERS. MODEL 4 x 1 ON THE NUMBER LINE



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

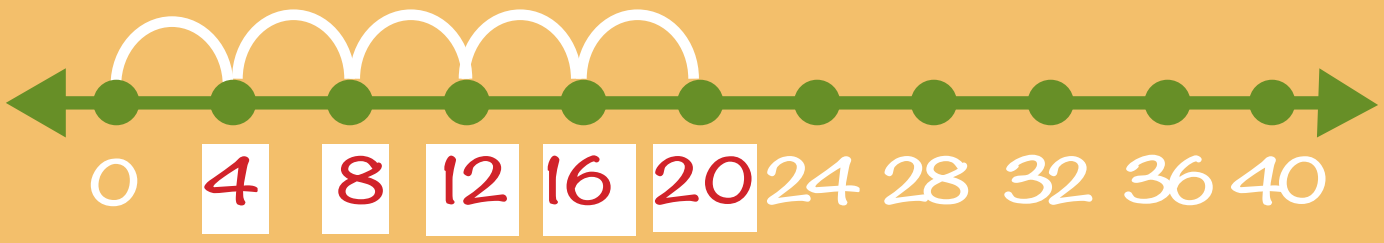


Modeling Multiplication

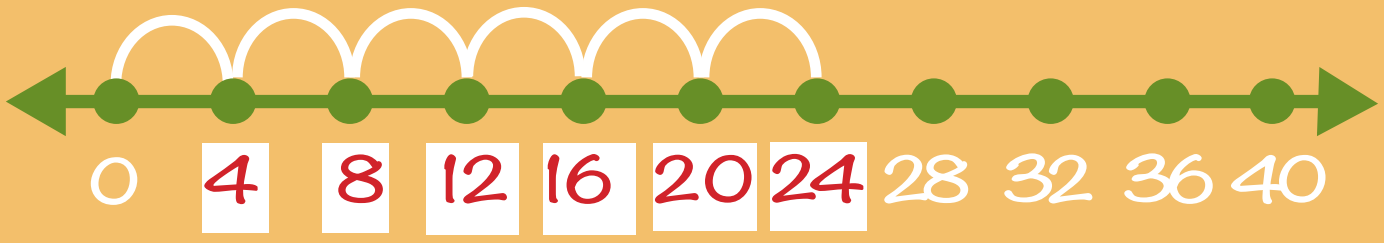
SKIP COUNTING

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

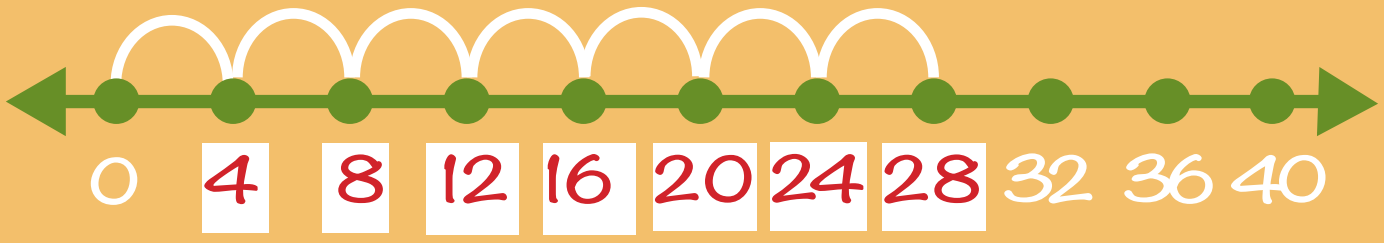
FILL IN THE MISSING NUMBERS. MODEL 4 x 5 ON THE NUMBER LINE



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



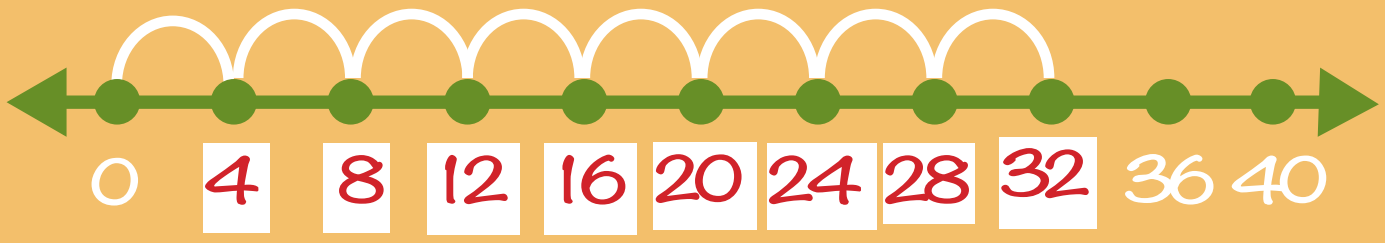
FILL IN THE MISSING NUMBERS. MODEL 4 x 7 ON THE NUMBER LINE



Modeling Multiplication

SKIP COUNTING

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

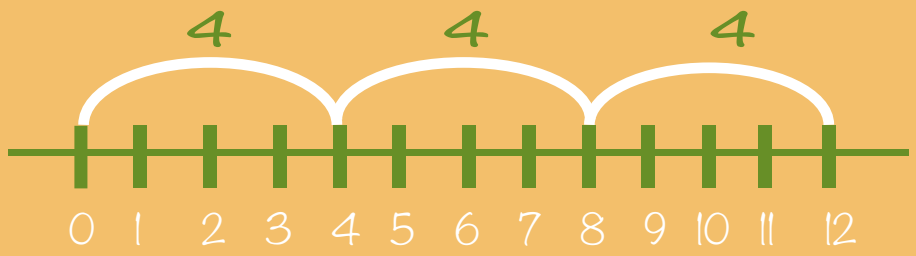


FILL IN THE MISSING NUMBERS. MODEL 4 x 9 ON THE NUMBER LINE

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

Multiplication Strategies:

SKIP COUNTING ON THE NUMBER LINE



4 x 3

SOLVE THE PROBLEM ON THE NUMBER LINE

4 x 2

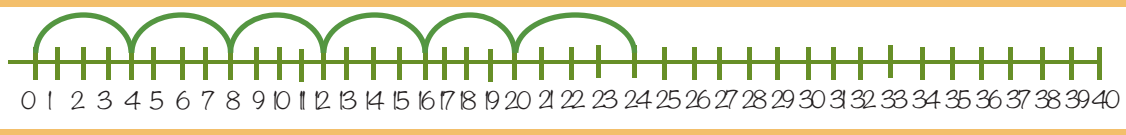
4 x 3

4 x 4

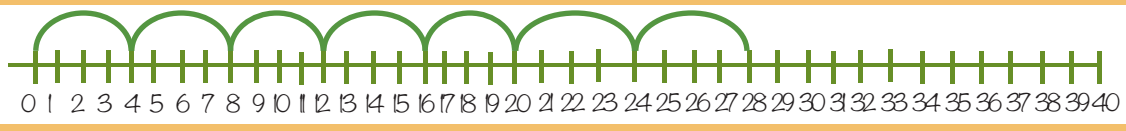
4 x 5

SOLVE THE PROBLEM ON THE NUMBER LINE

4 x 6

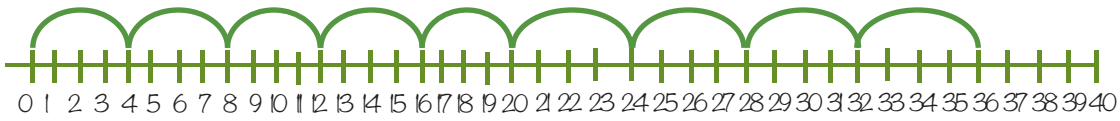


4 x 7



4 x 8

4 x 9

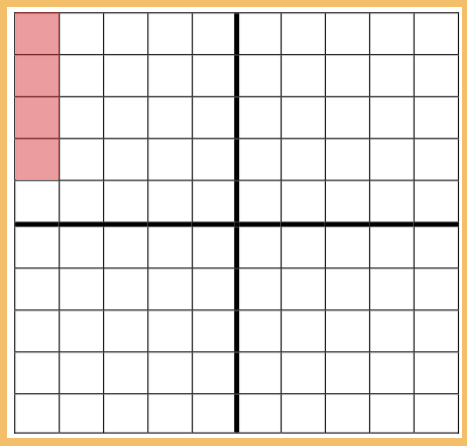


4 x 10

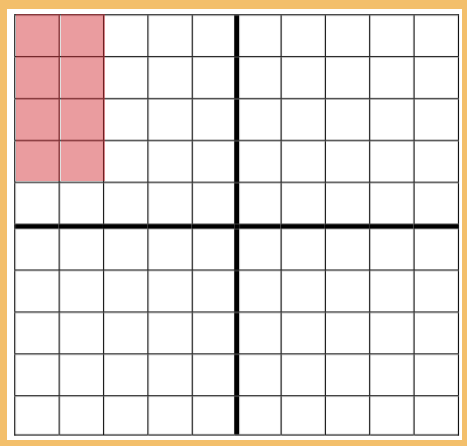
Array Flashcards

MODEL THE PROBLEMS ON THE GRIDS.

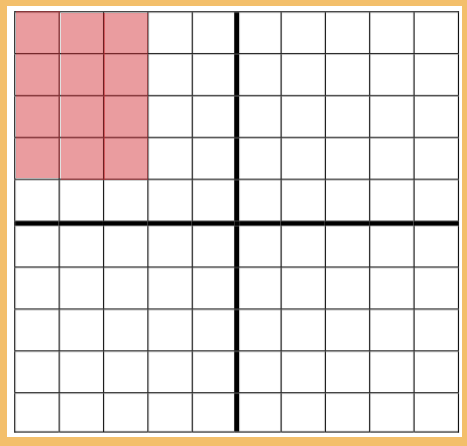
4 x 1 = 4



4 x 2 = 8



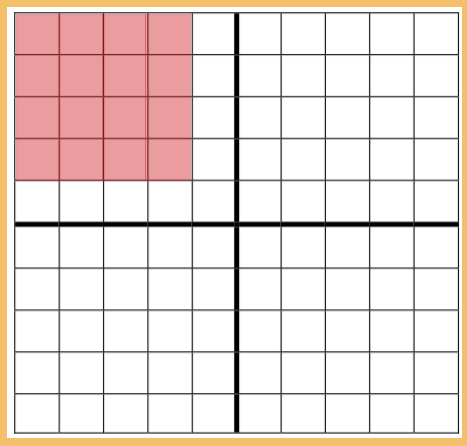
4 x 3 = 12



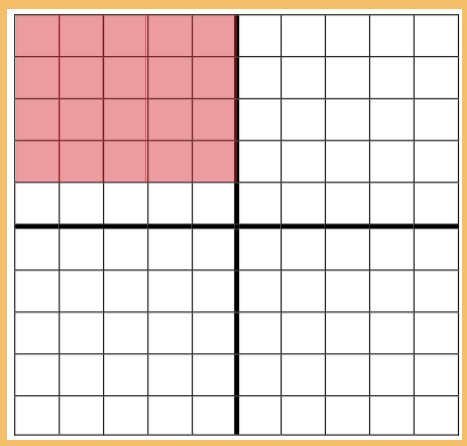
Array Flashcards

MODEL THE PROBLEMS ON THE GRIDS.

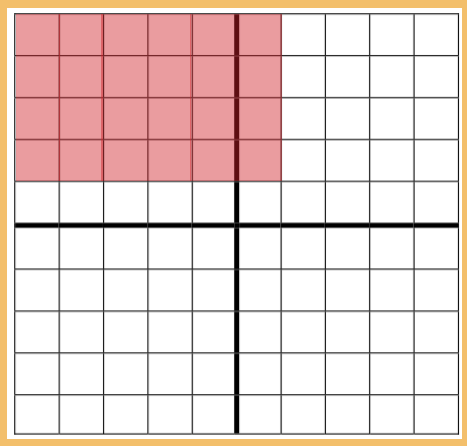
4 x 4 = 16



4 x 5 = 20



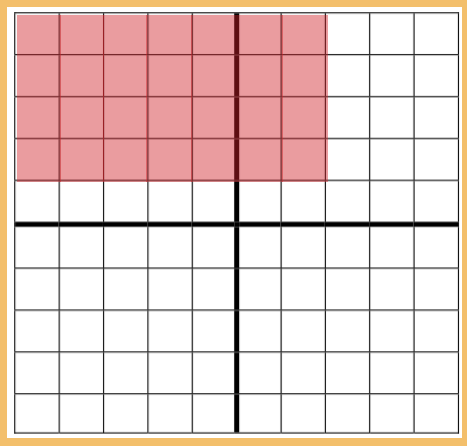
4 x 6 = 24



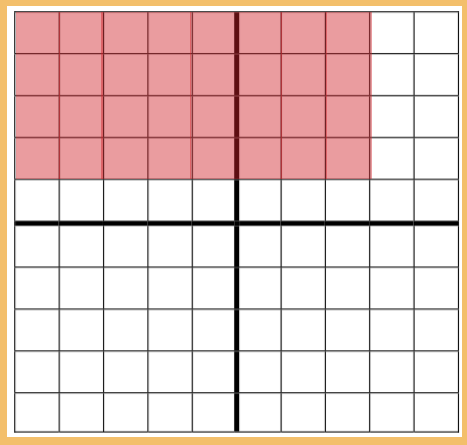
Array Flashcards

MODEL THE PROBLEMS ON THE GRIDS.

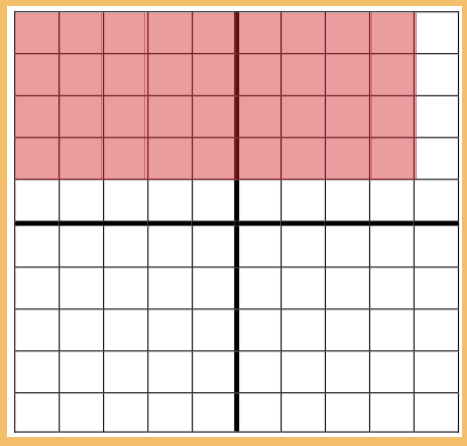
4 x 7 = 28



4 x 8 = 32



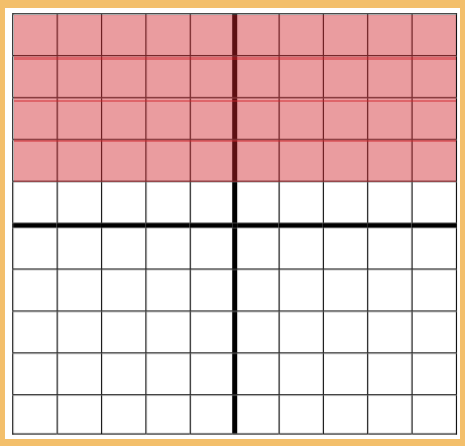
4 x 9 = 36



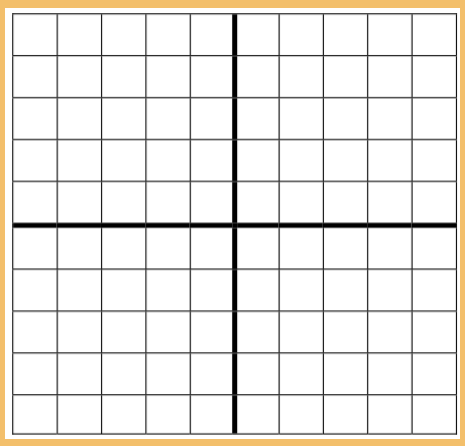
Array Flashcards

MODEL THE PROBLEMS ON THE GRIDS.

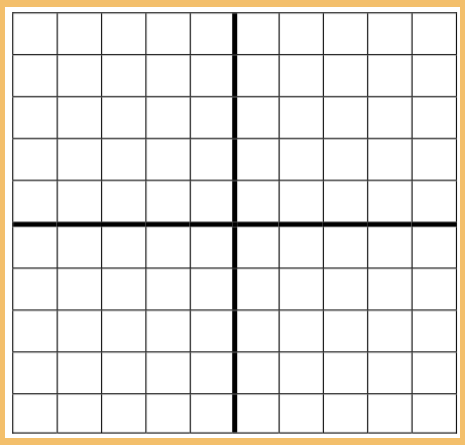
4 x 10 = 40



FREE CHOICE



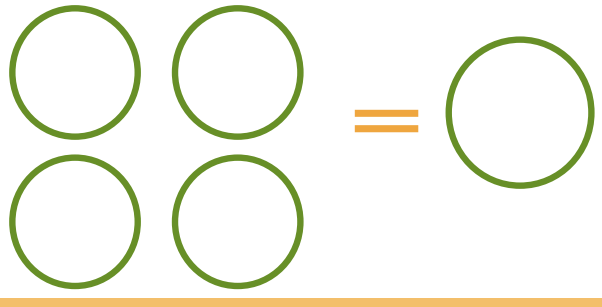
FREE CHOICE



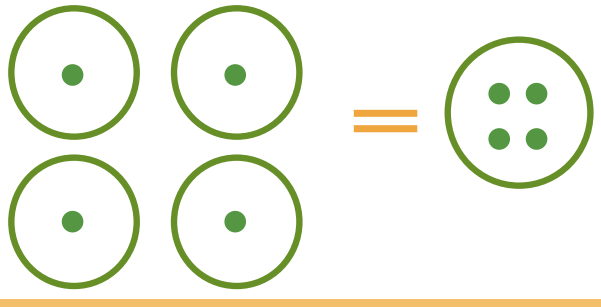
Equal Group Flashcards

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

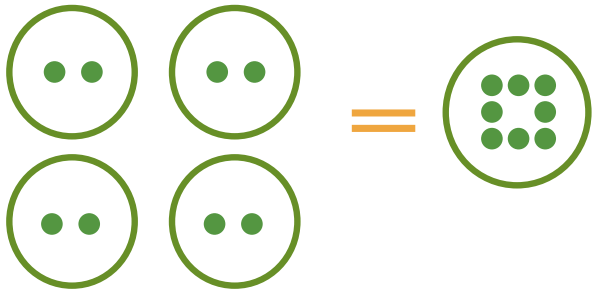
4 X 0 = 0



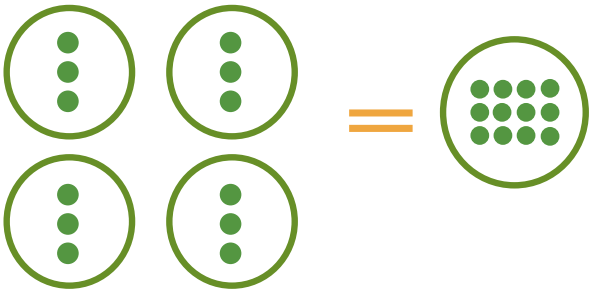
4 X 1 = 4



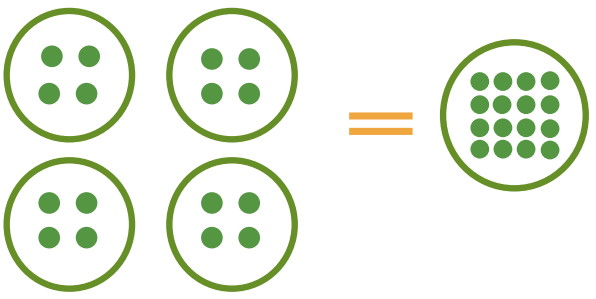
4 X 2 = 8



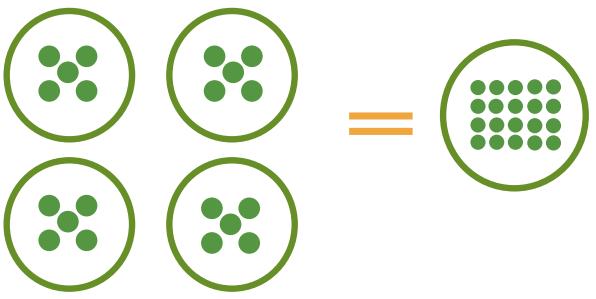
4 X 3 = 12



4 X 4 = 16



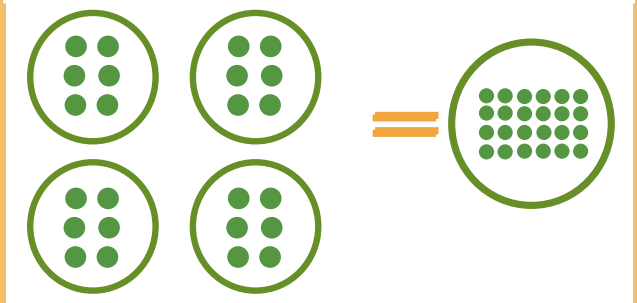
4 X 5 = 20



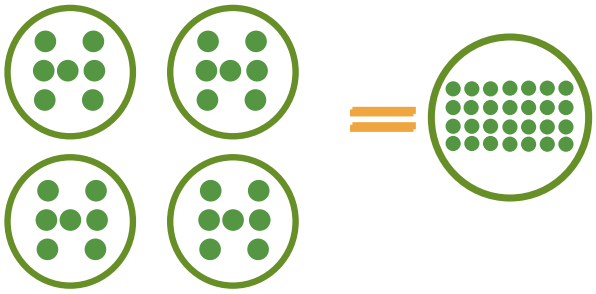
Equal Group Flashcards

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

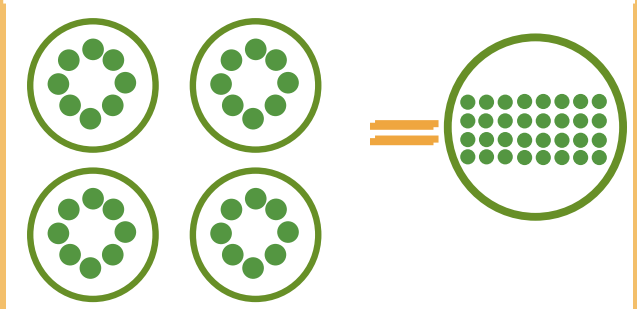
4 X 6 = 24



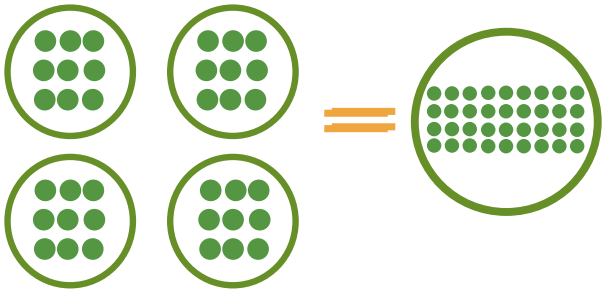
4 X 7 = 28



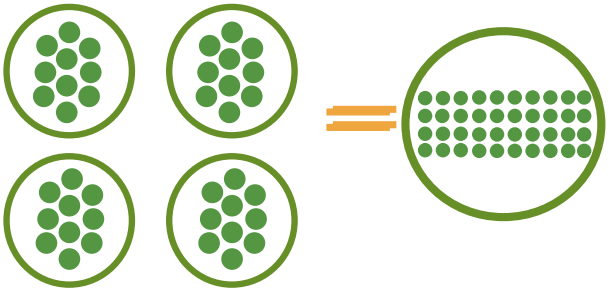
4 X 8 = 32



4 X 9 = 36



4 X 10 = 40



Regular Flashcards

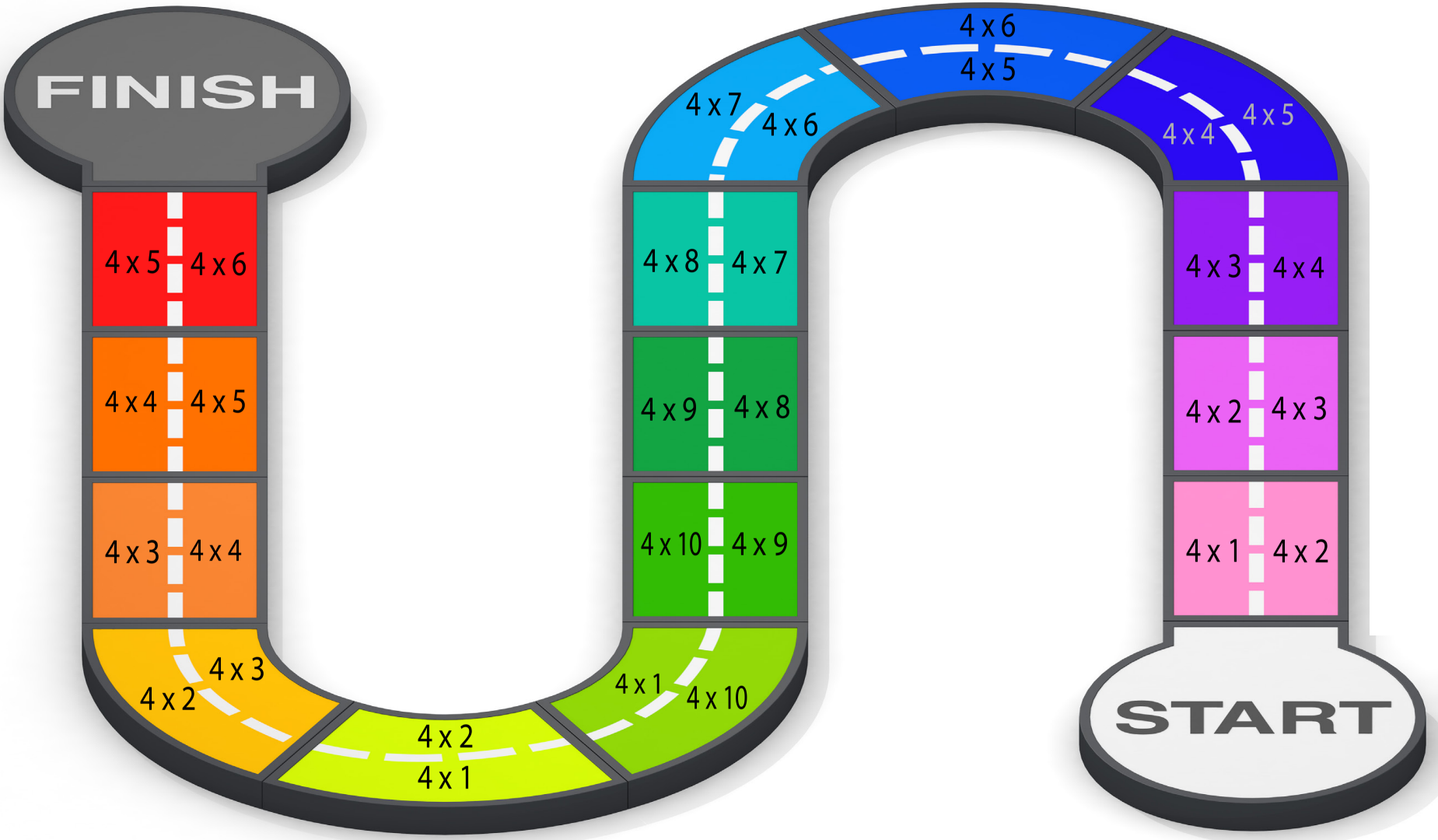
4 x 0	4 x 1
4 x 2	4 x 3
4 x 4	4 x 5

Regular Flashcards

4 × 6	4 × 7
4 × 8	4 × 9
4 × 10	

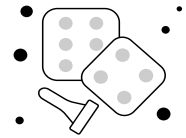
MULTIPLICATION RACE

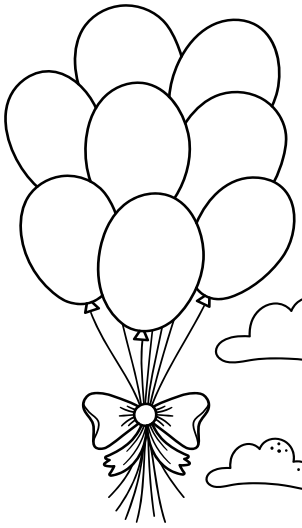
Directions: Play with a partner. Each player chooses a marker and a side. Decide who starts. Roll the die. Take turns moving. Player 1 says the product. Player 2 checks the answer using the bookmark. If it is correct, stay on the spot. If it is incorrect, move back one. Whoever reaches first wins.



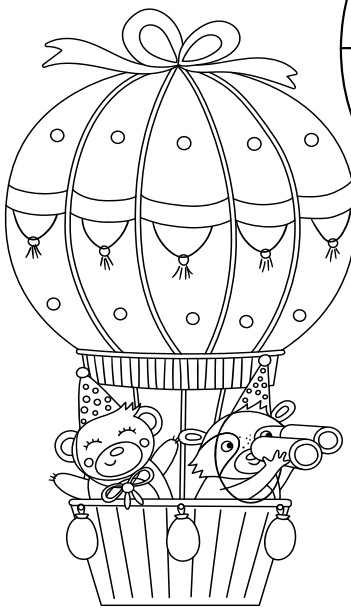
PUZZLE TIME

Help the animals get to the bunch of balloons



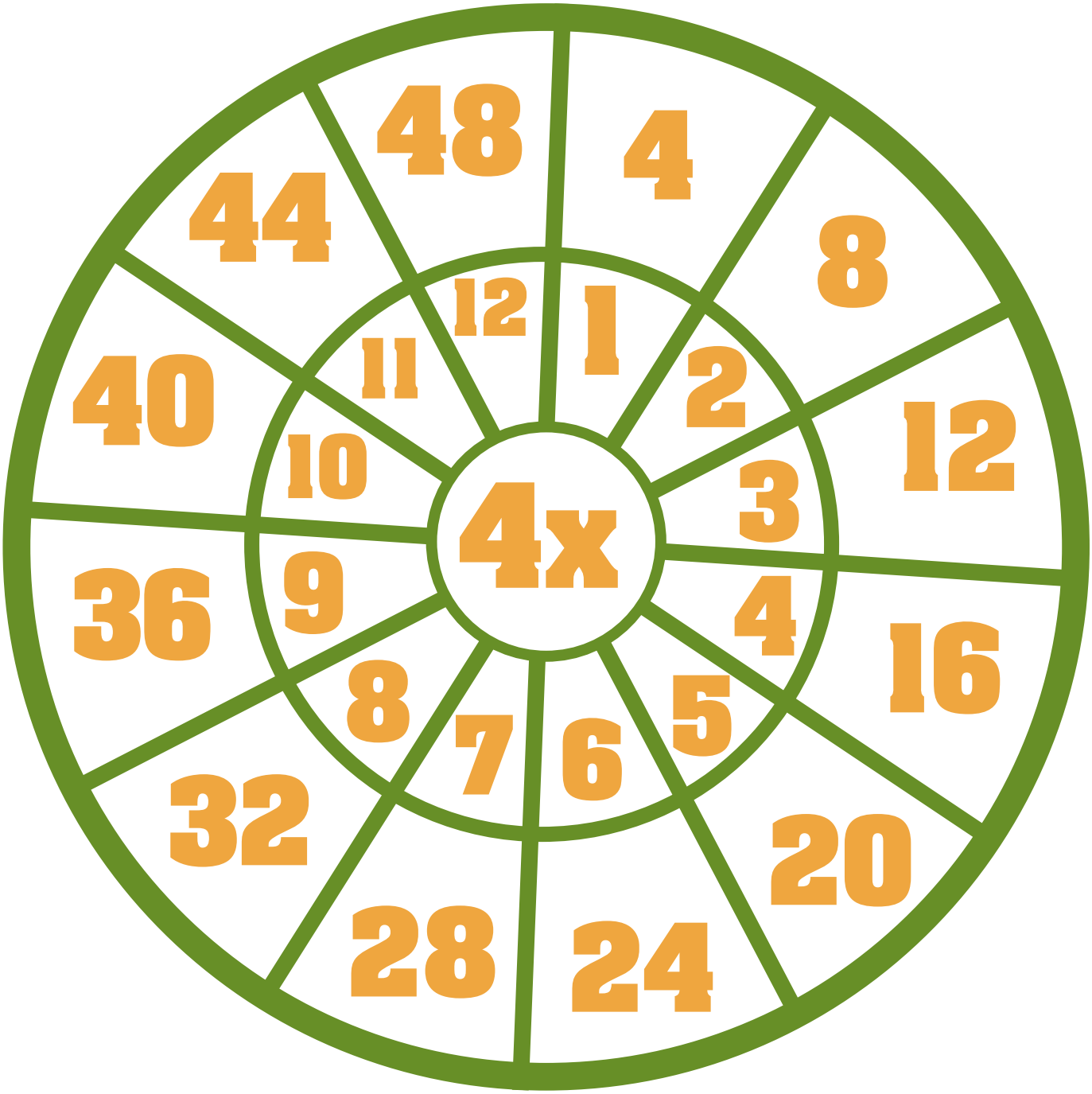


4 x 3 | 4 x 2 | 4 x 1 | 4 x 10 | 4 x 9 | 4 x 8 | 4 x 7 | 4 x 6 | 4 x 5 | 4 x 4 | 4 x 3 | 4 x 2 | 4 x 1 | 4 x 10 | 4 x 9 | 4 x 8 | 4 x 7 | 4 x 6 | 4 x 5 | 4 x 4 | 4 x 3 | 4 x 2 | 4 x 1 | 4 x 10 | 4 x 9 | 4 x 8 | 4 x 7 | 4 x 6 | 4 x 5 | 4 x 4 | 4 x 3 | 4 x 2 | 4 x 1

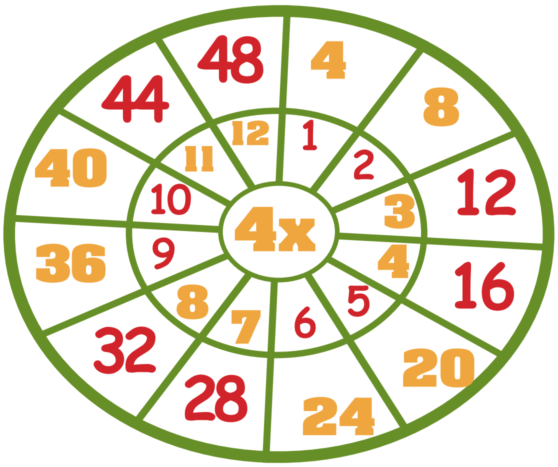


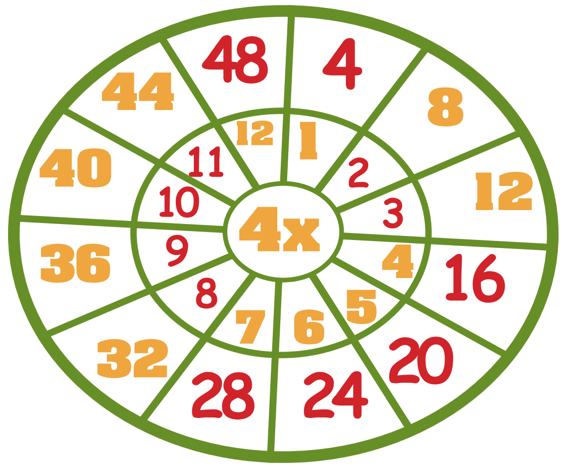
BALLOON RACE

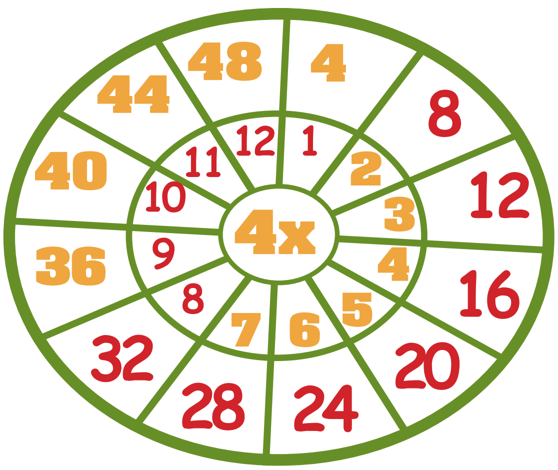
MULTIPLICATION WHEELS

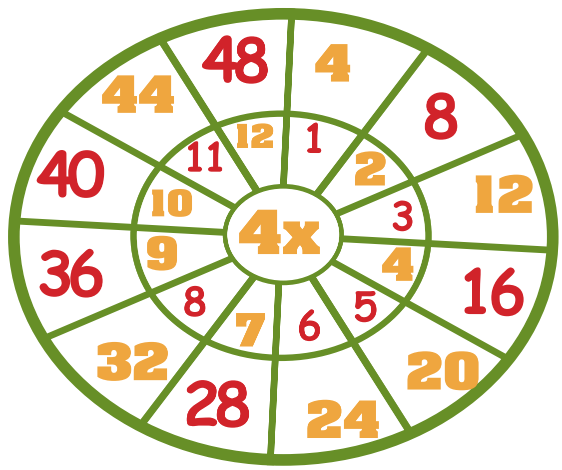


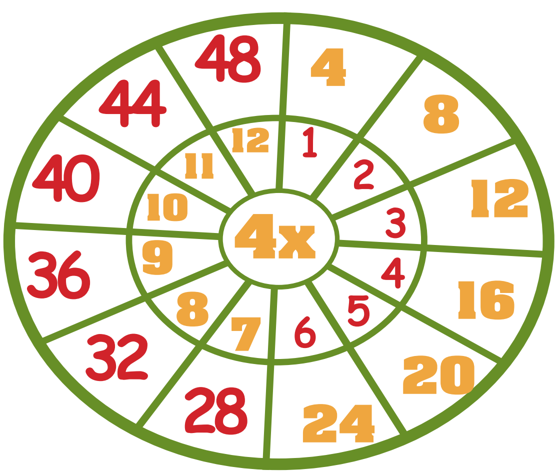
MULTIPLICATION WHEELS

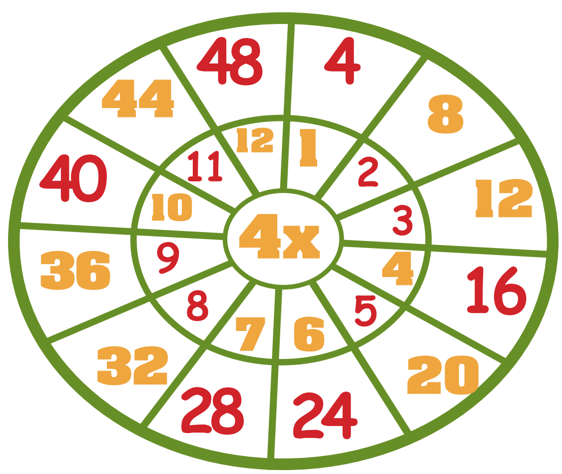












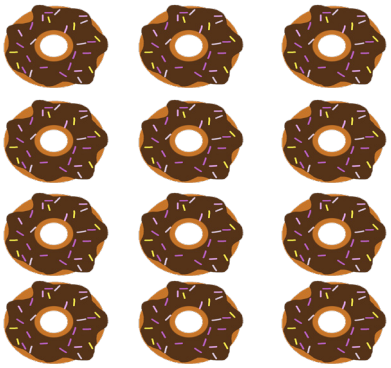
PICTURE FACT FAMILY

$4 \times 2 = 8$

$2 \times 4 = 8$

$8 \div 4 = 2$

$8 \div 2 = 4$



$4 \times 3 = 12$

$3 \times 4 = 12$

$12 \div 4 = 3$

$12 \div 3 = 4$

$4 \times 4 = 16$

$4 \times 4 = 16$

$16 \div 4 = 4$

$16 \div 4 = 4$

$4 \times 5 = 20$

$5 \times 4 = 20$

$20 \div 4 = 5$

$20 \div 5 = 4$

PICTURE FACT FAMILY

$4 \times 6 = 24$

$6 \times 4 = 24$

$24 \div 4 = 6$

$24 \div 6 = 4$

$4 \times 7 = 28$

$7 \times 4 = 28$

$28 \div 4 = 7$

$28 \div 7 = 4$

$4 \times 8 = 32$

$8 \times 4 = 32$

$32 \div 4 = 8$

$32 \div 8 = 4$

$4 \times 9 = 36$

$9 \times 4 = 36$

$36 \div 4 = 9$

$36 \div 9 = 4$

PICTURE FACT FAMILY

$4 \times 10 = 40$

$10 \times 4 = 40$

$40 \div 4 = 10$

$40 \div 10 = 4$

MAKE YOUR OWN

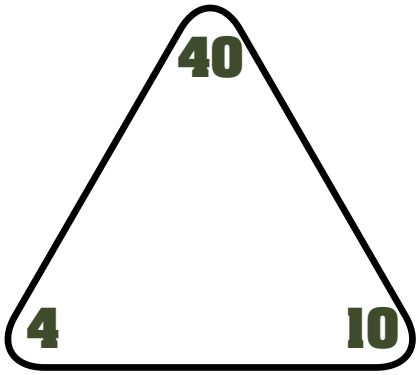
$\_\_ \times \_\_ = \_\_$

$\_\_ \times \_\_ = \_\_$

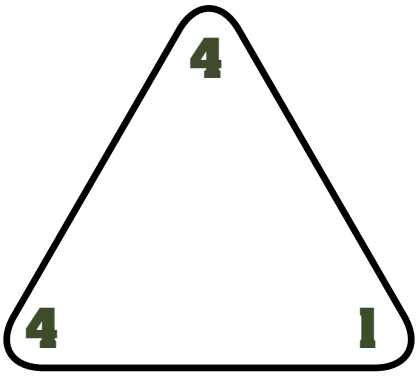
$\_\_ \div \_\_ = \_\_$

$\_\_ \div \_\_ = \_\_$

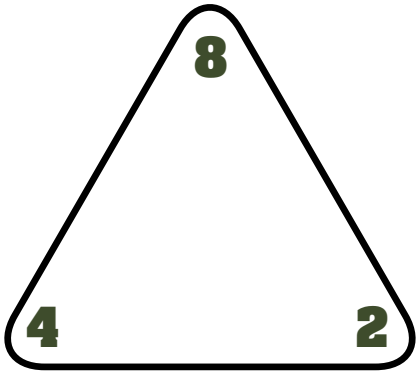
TRIANGLE FACT FAMILY



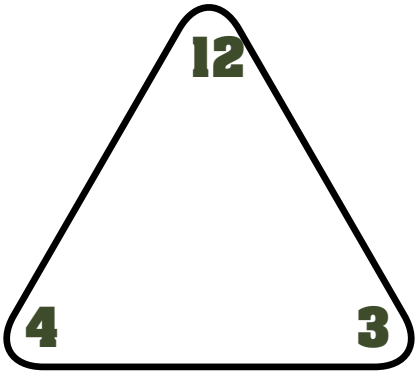
4 x 10 = 40
10 x 4 = 40
40 ÷ 4 = 10
40 ÷ 10 = 4



4 x 1 = 4
1 x 4 = 4
4 ÷ 4 = 1
4 ÷ 1 = 4

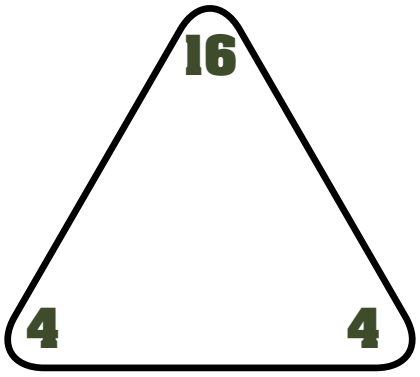


4 x 2 = 8
2 x 4 = 8
8 ÷ 4 = 2
8 ÷ 2 = 4

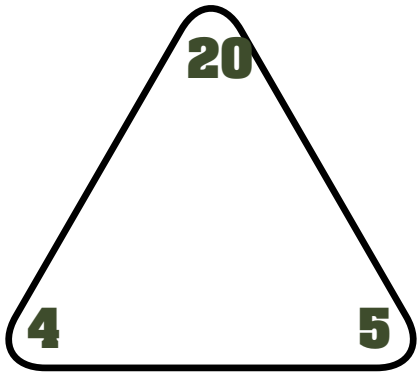


4 x 3 = 12
3 x 4 = 12
12 ÷ 4 = 3
12 ÷ 3 = 4

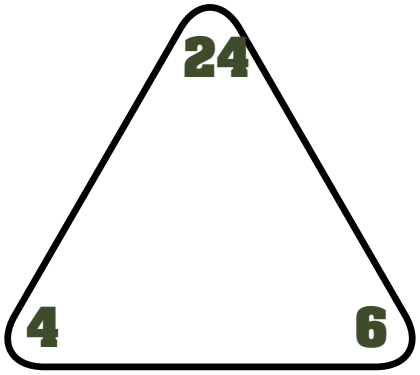
TRIANGLE FACT FAMILY



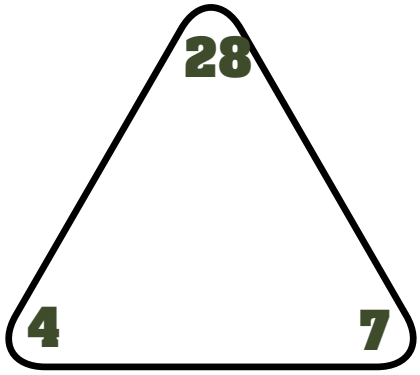
4 x 4 = 16
4 x 4 = 16
16 ÷ 4 = 4
16 ÷ 4 = 4



4 x 5 = 20
5 x 4 = 20
20 ÷ 4 = 5
20 ÷ 5 = 4

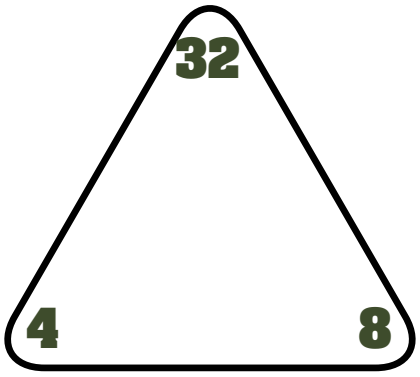


4 x 6 = 24
6 x 4 = 24
24 ÷ 4 = 6
24 ÷ 6 = 4

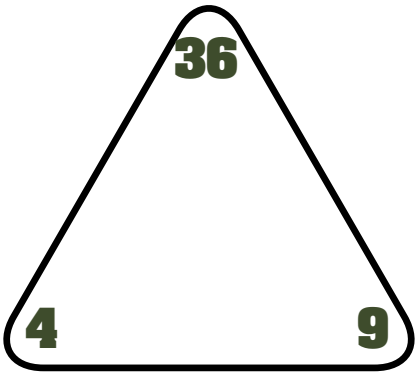


4 x 7 = 28
7 x 4 = 28
28 ÷ 4 = 7
28 ÷ 7 = 4

TRIANGLE FACT FAMILY

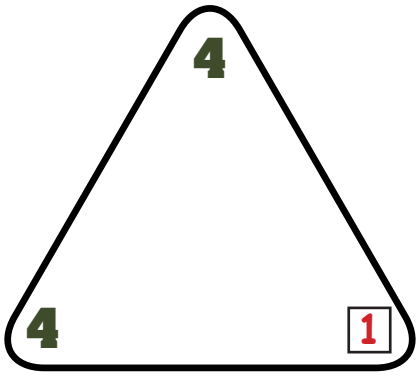


4	x	8	=	32
8	x	4	=	32
32	÷	4	=	8
32	÷	8	=	4

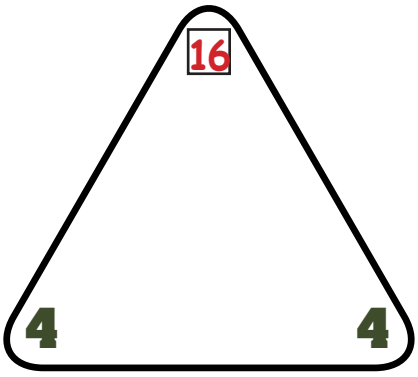


4	x	9	=	36
9	x	4	=	36
36	÷	4	=	9
36	÷	9	=	4

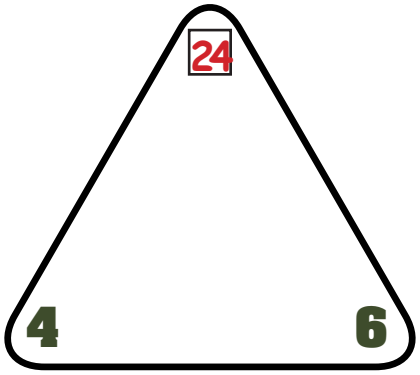
TRIANGLE FACT FAMILY



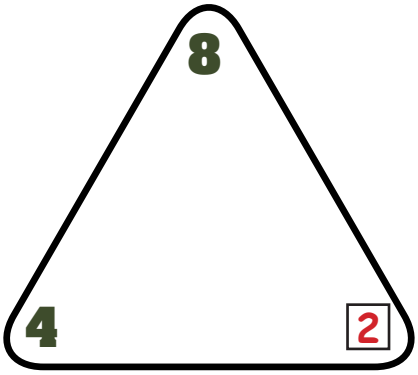
4 x 1 = 4
1 x 4 = 4
4 ÷ 4 = 1
4 ÷ 1 = 4



4 x 4 = 16
4 x 4 = 16
16 ÷ 4 = 4
16 ÷ 4 = 4

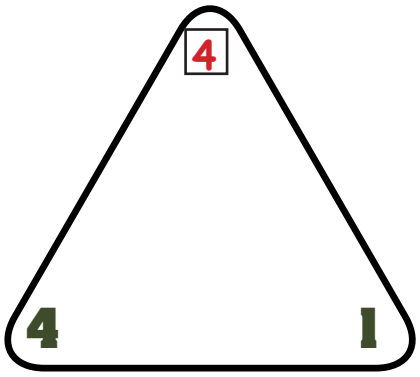


4 x 6 = 24
6 x 4 = 24
24 ÷ 4 = 6
24 ÷ 6 = 4



4 x 2 = 8
2 x 4 = 8
8 ÷ 4 = 2
8 ÷ 2 = 4

TRIANGLE FACT FAMILY

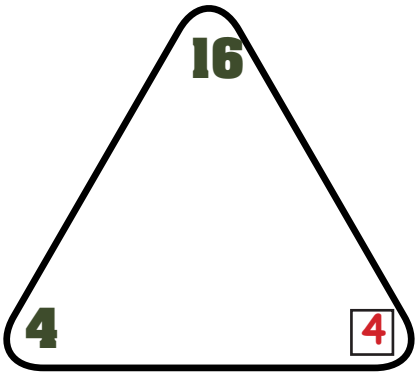


$4 \times 1 = 4$

$1 \times 4 = 4$

$4 \div 4 = 1$

$4 \div 1 = 4$

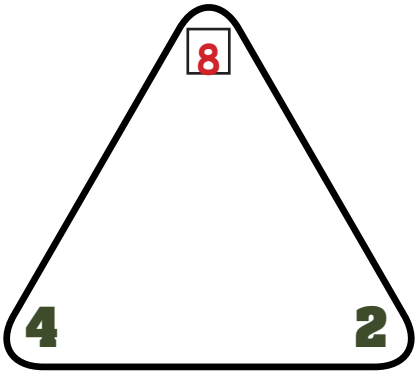


$4 \times 4 = 16$

$4 \times 4 = 16$

$16 \div 4 = 4$

$16 \div 4 = 4$



$4 \times 2 = 8$

$2 \times 4 = 8$

$8 \div 4 = 2$

$8 \div 2 = 4$

WORD PROBLEM

MODEL YOUR THINKING AND SOLVE THE PROBLEM

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

4 x 4 = 16

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

4 x 8 = 32

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

4 x 3 = 12

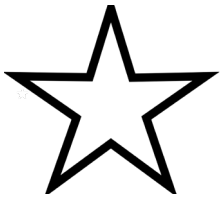
THE BAKERY HAD 4 BOXES OF DONUTS WITH 10 DONUTS IN EACH BOX. HOW MANY DONUTS DID THEY HAVE ALTOGETHER?

4 x 10 = 40

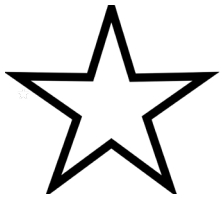
QUIZ

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...**



GREAT MATH WORK!



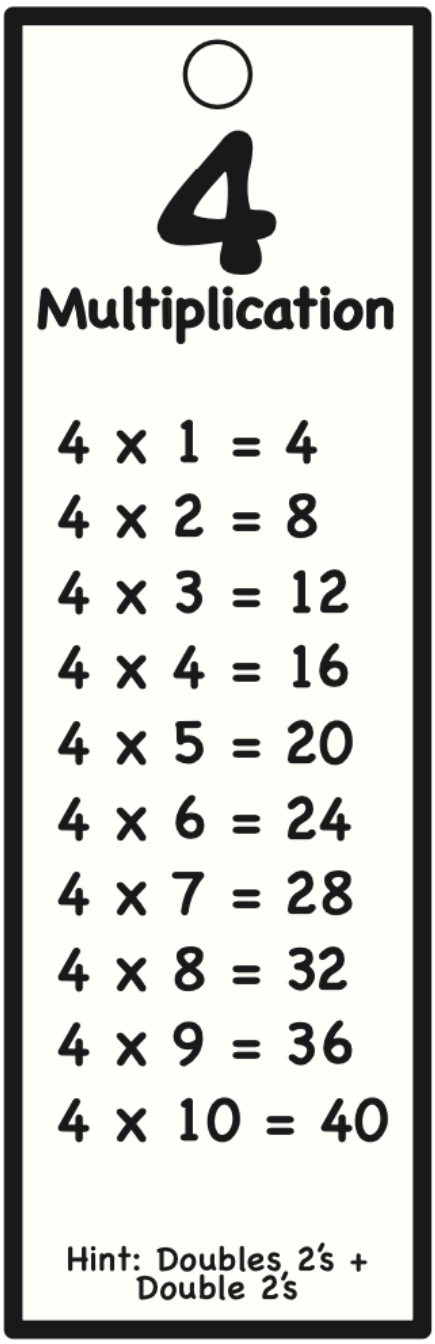
CERTIFICATE

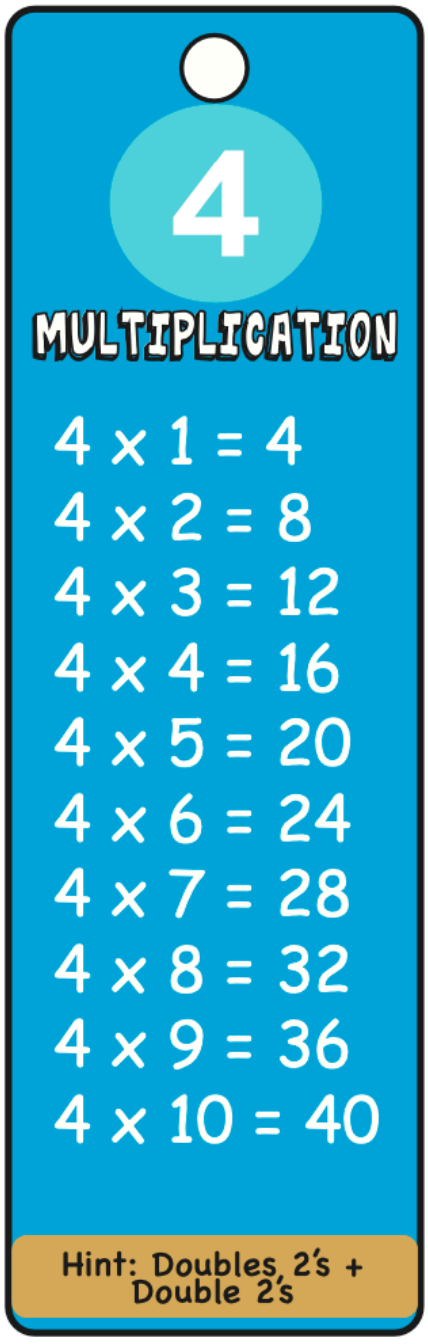
_____

HAS SUCCESSFULLY PRACTICED THE 4 TIMES TABLES!

GREAT JOB!

TEACHER: _____ **DATE:** _____


4
Multiplication
4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40
Hint: Doubles 2's + Double 2's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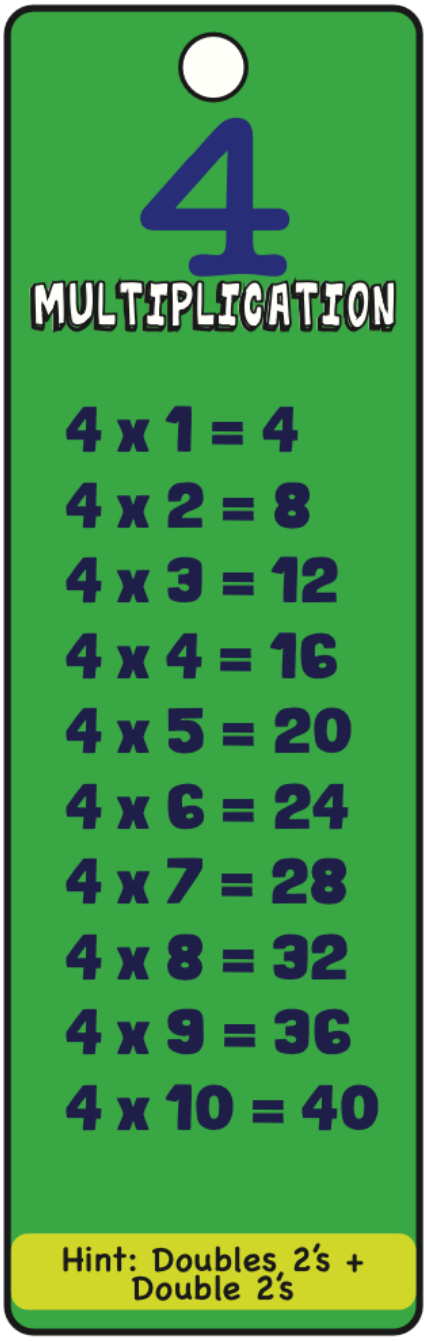
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