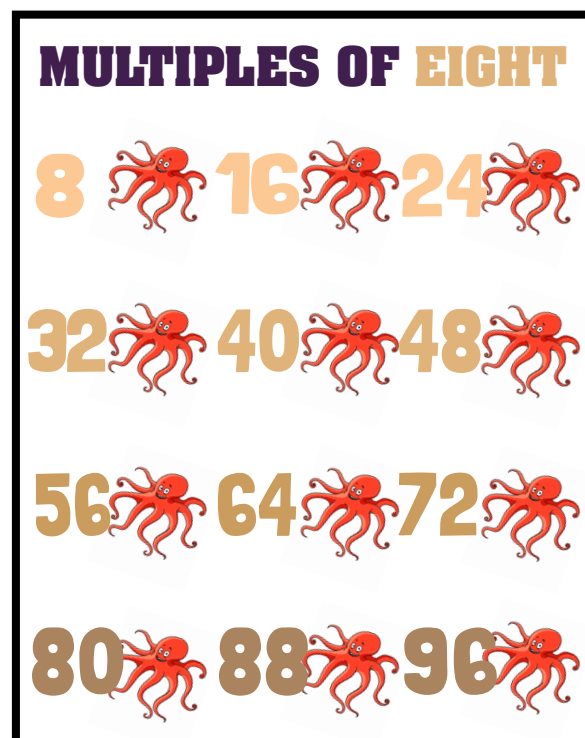
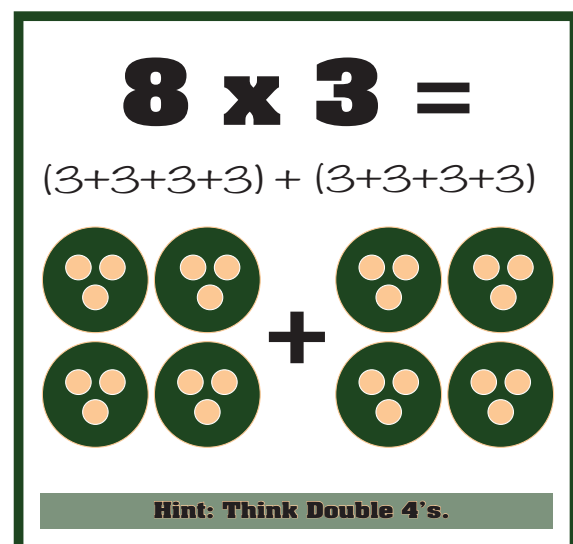
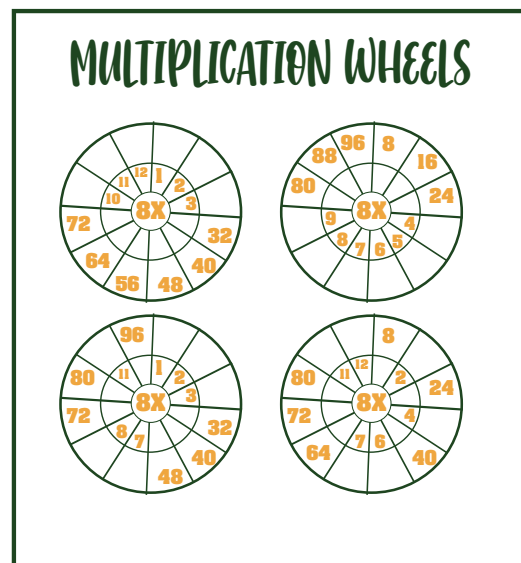
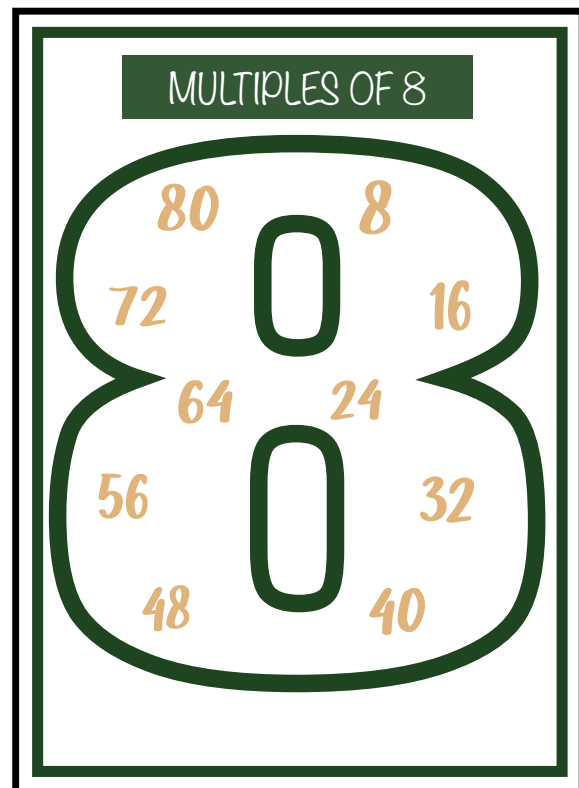


MULTIPLYING by 8

WORK BOOKLET

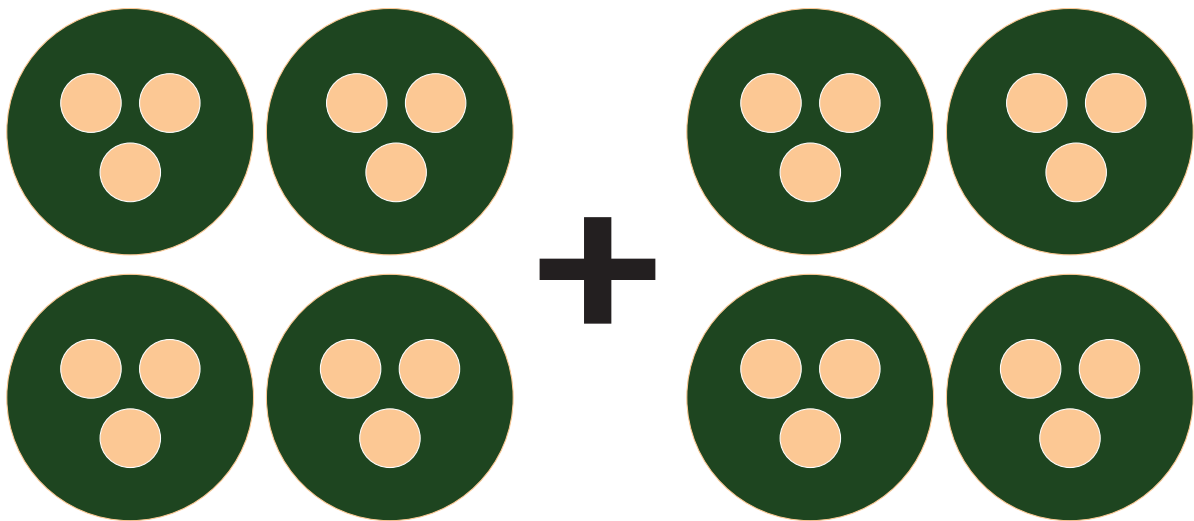


STRATEGY POSTER

When multiplying by **8**
Think Double 4's

$$8 \times 3 =$$

$$(4 \times 3) + (4 \times 3) + (3 + 3 + 3 + 3) + (3 + 3 + 3 + 3)$$



Hint: Think Double 4's

MULTIPLICATION

$$8 \times 6 = 48$$



FACTOR

FACTOR

PRODUCT

MULTIPLES OF EIGHT

8



16



24



32



40



48



56



64



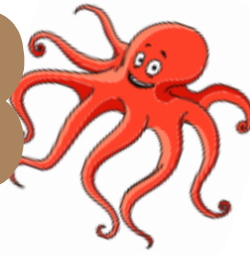
72



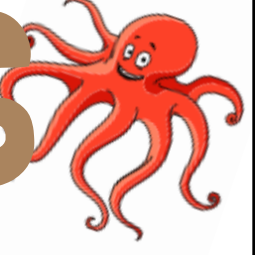
80



88



96



MULTIPLES OF EIGHT

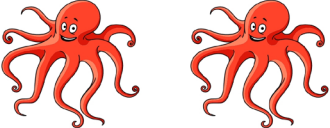
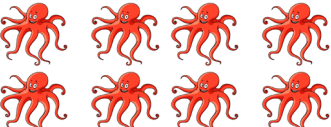
8     16     24    

32     40     48    

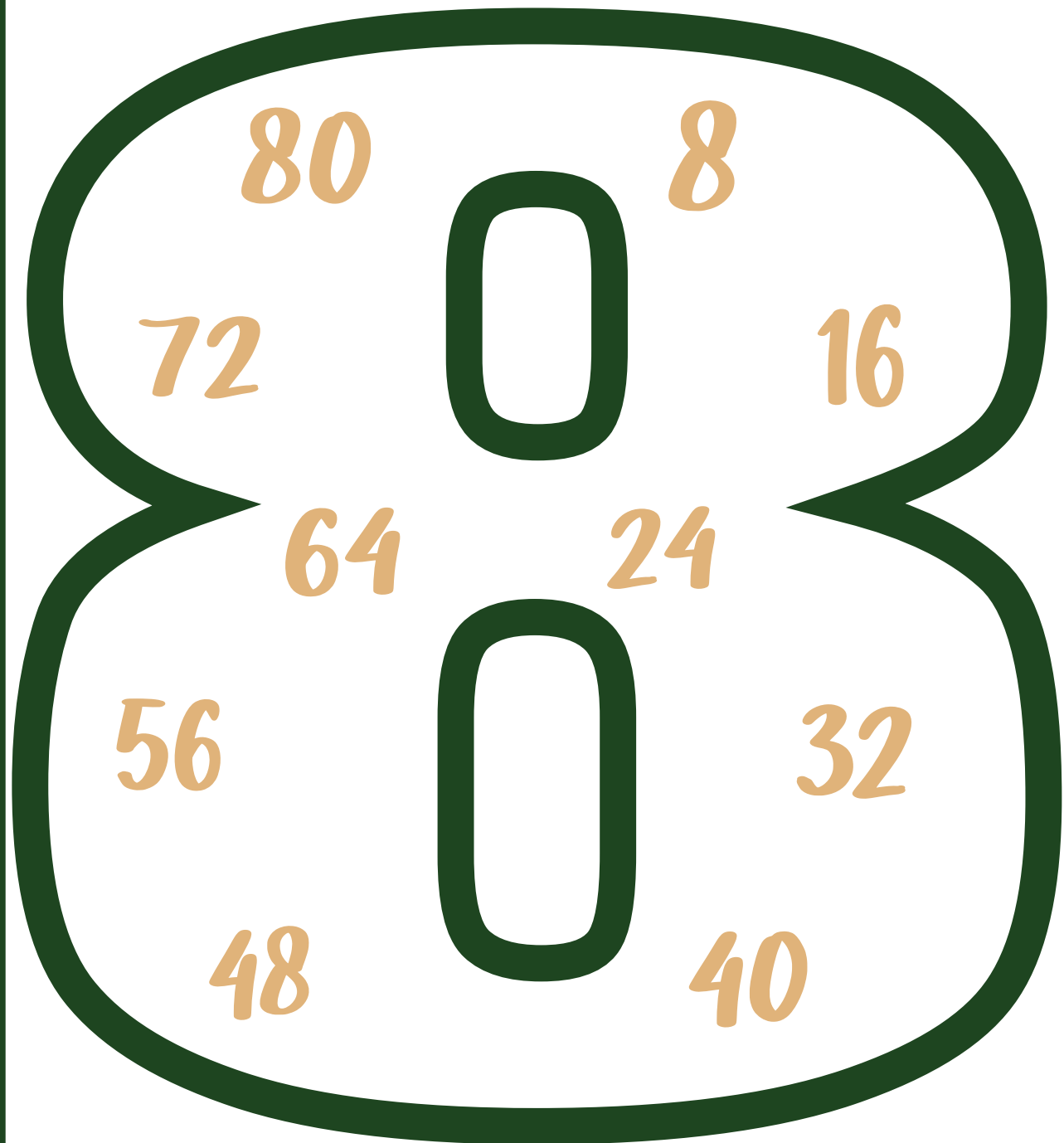
56     64     72    

80     88     96    

PICTURING THE MATH

GROUP 8 LEGS ARE ON AN OCTOPUS.	COUNT BY SEQUENCE	MULTIPLICATION EQUATION
If you have 2 octopi, how many legs would you have? 	8, 16	2 x 8 = 16
If you have 5 octopi, how many legs would you have? 	8,16,24,32,40	5 x 8 = 40
If you have 7 octopi, how many legs would you have? 		
If you have 4 octopi, how many legs would you have? 		
If you have 8 octopi, how many legs would you have? 		

MULTIPLES OF 8

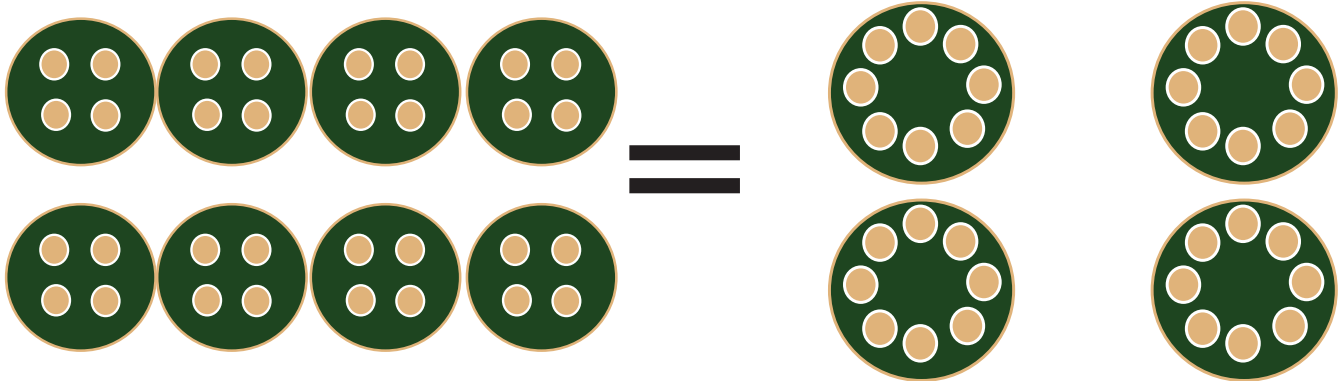




VOCABULARY

COMMUTATIVE PROPERTY

$$8 \times 4 = 4 \times 8$$

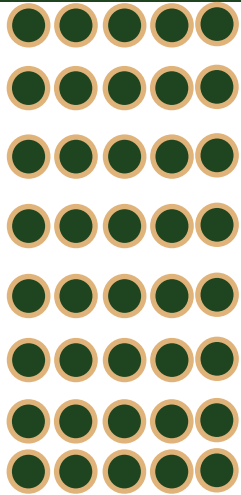


MODEL THE FACTS

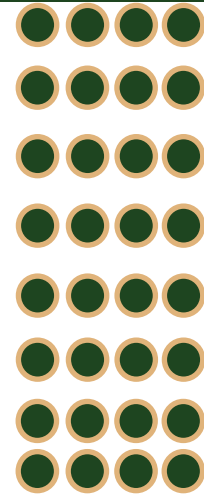
$$8 \times 3 = 3 \times 8$$

$$8 \times 1 = 1 \times 8$$

DISTRIBUTIVE PROPERTY



$$8 \times 9$$

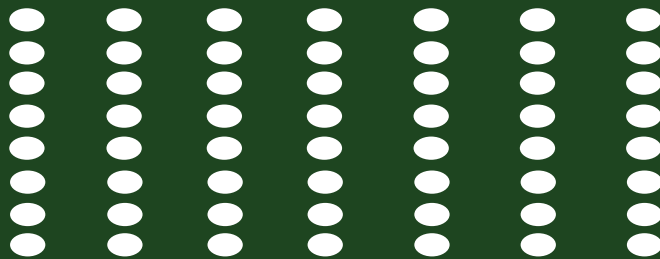


$$8 \times 5$$

$$8 \times 4$$

MODEL THE FACTS

$$8 \times 7 = (_ \times _) + (_ \times _)$$



There are other to ways to model this as well.

ASSOCIATIVE PROPERTY

$$8 \times 3 \times 2$$

$$8 \times 6 \text{ or } 2 \times 24$$

MODEL THE FACTS

$$8 \times 1 \times 8 = \underline{\quad} \times \underline{\quad}$$

$$8 \times 8 \times 8 = \underline{\quad} \times \underline{\quad}$$

$$8 \times 2 \times 8 = \underline{\quad} \times \underline{\quad}$$

These are examples. There are other answers.

FREE CHOICE

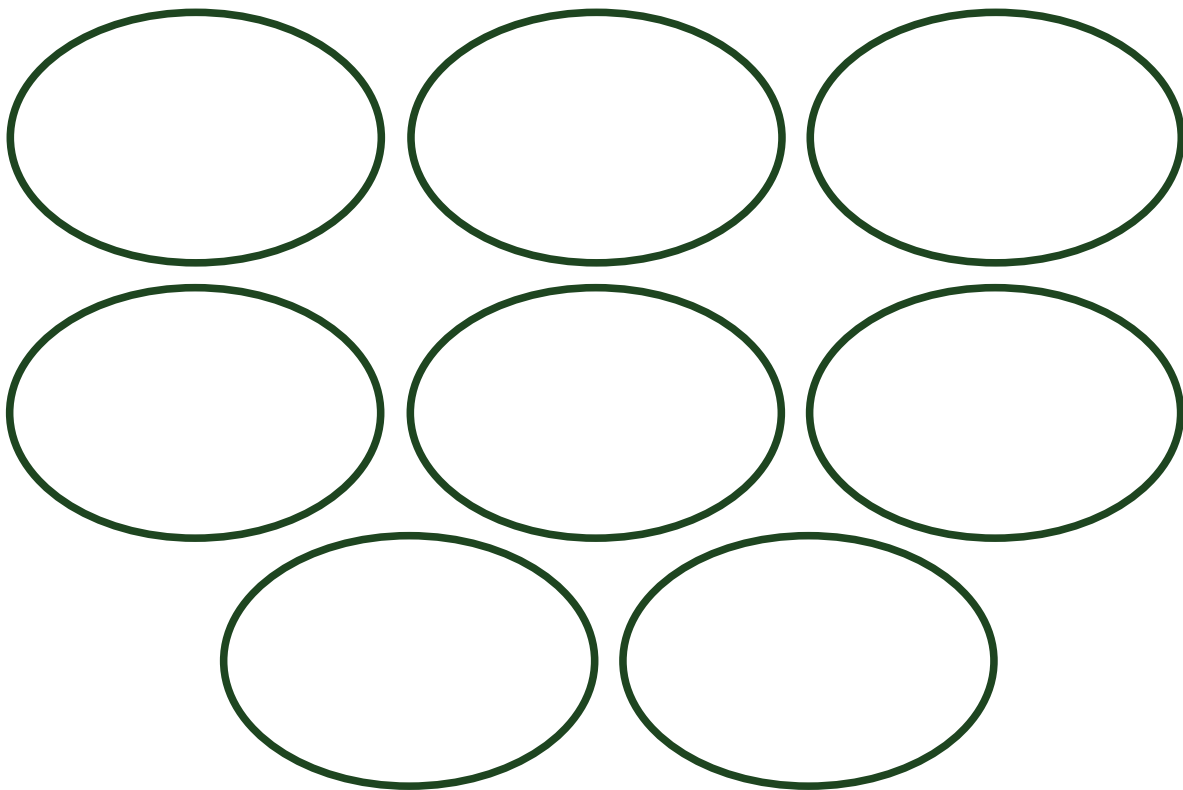
$$\underline{\quad} \times \underline{\quad} \times \underline{\quad} = \underline{\quad} \times \underline{\quad}$$

ZERO PROPERTY

When you multiply
by zero you get zero...

Zero groups of anything is zero

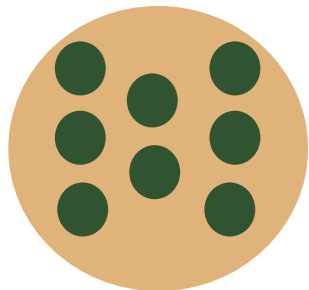
8 groups of 0 is 0



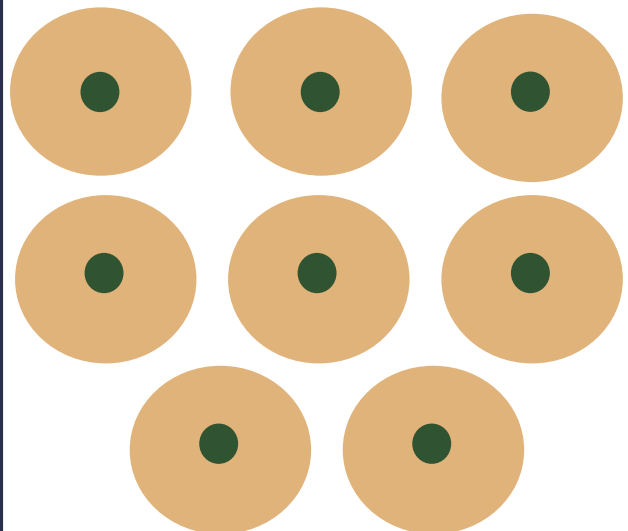
IDENTITY PROPERTY

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

**1 group of
8 is 8**

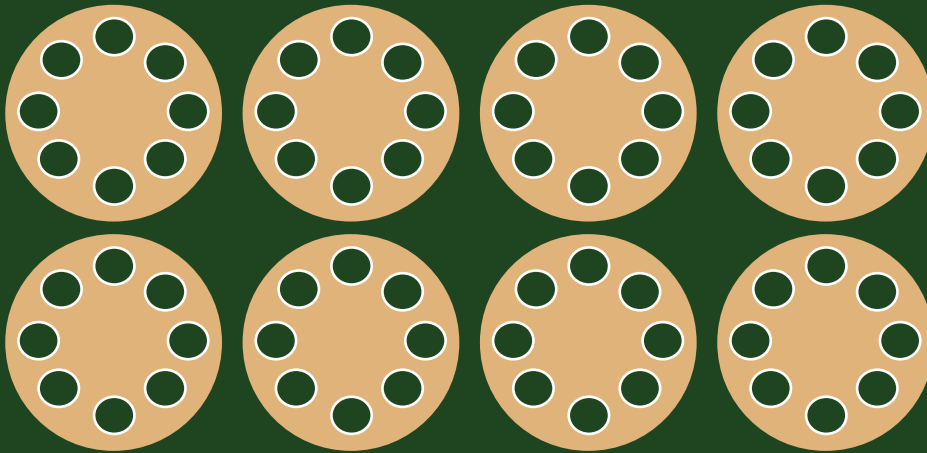


**8 groups
of 1 is 8**



Modeling Multiplication

DRAW EQUAL GROUPS



$$8 \times 8$$

$$8 \times 1$$

$$8 \times 2$$

$$8 \times 3$$

$$8 \times 4$$

Modeling Multiplication

DRAW EQUAL GROUPS

8 X 5

8 X 6

8 X 7

8 X 8

8 X 9

8 X 10

FREE CHOICE

FREE CHOICE

Modeling Multiplication

DRAW AN ARRAY

8 groups of 4

$$8 \times 4 = ?$$

○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○

DRAW AN ARRAY

$$8 \times 1$$

$$8 \times 2$$

$$8 \times 3$$

$$8 \times 4$$

Modeling Multiplication

DRAW AN ARRAY

8×5

8×6

8×7

8×8

8×9

8×10

FREE CHOICE

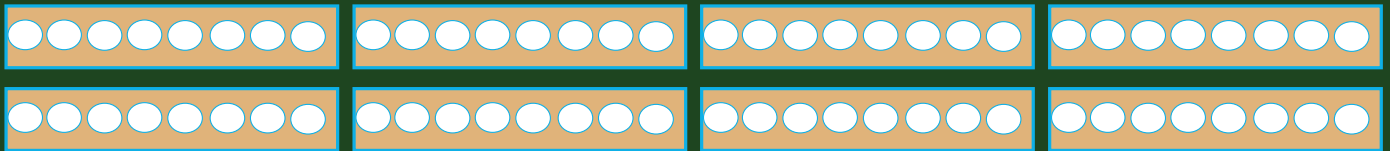
FREE CHOICE

Multiplication Strategies:

REPEATED ADDITION

8 groups of 8

$$8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 64$$



$$8 \times 8 = 64$$

MODEL THE REPEATED ADDITION SENTENCE

$$8 \times 1 =$$
$$1+1+1+1+1+1+1+1$$

--

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

--

$$8 \times 3 =$$
$$3+3+3+3+3+3+3+3$$

--

$$8 \times 4 =$$
$$4+4+4+4+4+4+4+4$$

--

Multiplication strategies:

REPEATED ADDITION

$$8 \times 5 =$$

$$5+5+5+5+5+5+5+5$$

$$8 \times 6 =$$

$$6+6+6+6+6+6+6+6$$

$$8 \times 7 =$$

$$7+7+7+7+7+7+7+7$$

$$8 \times 8 =$$

$$8+8+8+8+8+8+8+8$$

$$8 \times 9 =$$

$$9+9+9+9+9+9+9+9$$

$$8 \times 10 =$$

$$10+10+10+10+10+10+10+10$$

FREE CHOICE

FREE CHOICE

Modeling Multiplication

SKIP COUNTING

DRAW ON A NUMBER LINE



FILL IN THE MISSING NUMBERS



Modeling Multiplication

SKIP COUNTING

FILL IN THE MISSING NUMBERS

8		24		40		56			80
---	--	----	--	----	--	----	--	--	----

FILL IN THE MISSING NUMBERS

	16		32	40		56		72	
--	----	--	----	----	--	----	--	----	--

FILL IN THE MISSING NUMBERS

	16		32		48		64		80
--	----	--	----	--	----	--	----	--	----

FILL IN THE MISSING NUMBERS

8		24		40		56		72	
---	--	----	--	----	--	----	--	----	--

Modeling Multiplication

SKIP COUNTING

FILL IN THE MISSING NUMBERS. MODEL 8×1 ON THE NUMBER LINE.



FILL IN THE MISSING NUMBERS. MODEL 8×2 ON THE NUMBER LINE.



FILL IN THE MISSING NUMBERS. MODEL 8×3 ON THE NUMBER LINE.



Modeling Multiplication

SKIP COUNTING

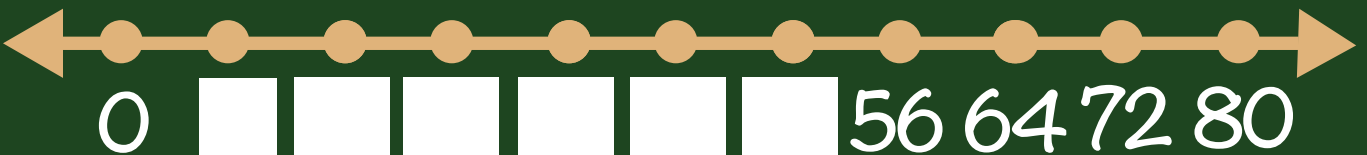
FILL IN THE MISSING NUMBERS. MODEL 8×4 ON THE NUMBER LINE.



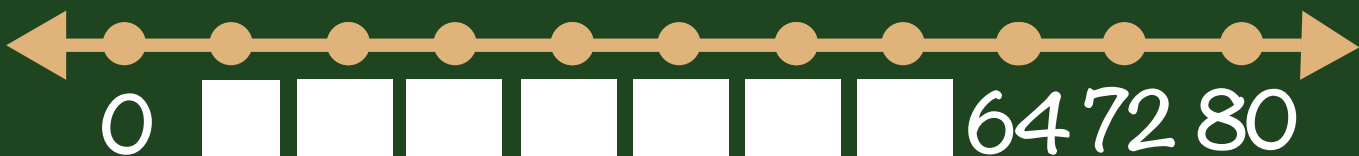
FILL IN THE MISSING NUMBERS. MODEL 8×5 ON THE NUMBER LINE.



FILL IN THE MISSING NUMBERS. MODEL 8×6 ON THE NUMBER LINE.



FILL IN THE MISSING NUMBERS. MODEL 8×7 ON THE NUMBER LINE.



Modeling Multiplication

SKIP COUNTING

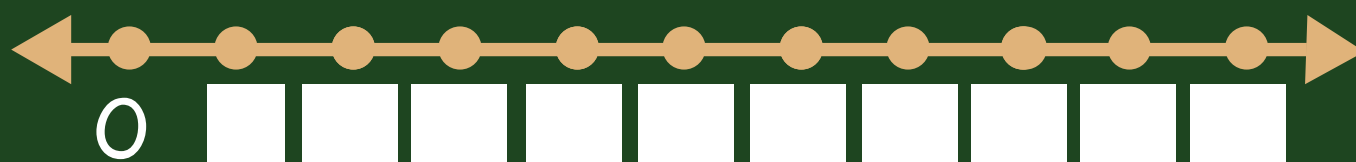
FILL IN THE MISSING NUMBERS. MODEL 8×8 ON THE NUMBER LINE.



FILL IN THE MISSING NUMBERS. MODEL 8×9 ON THE NUMBER LINE.



FILL IN THE MISSING NUMBERS. MODEL 8×10 ON THE NUMBER LINE.



Multiplication Strategies:

SKIP COUNTING ON THE NUMBER LINE



$$8 \times 2$$

SOLVE THE PROBLEM ON THE NUMBER LINE.

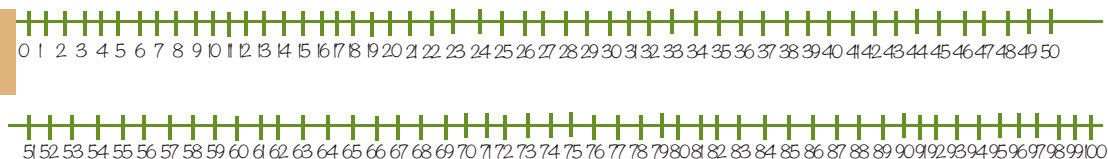
$$8 \times 2$$



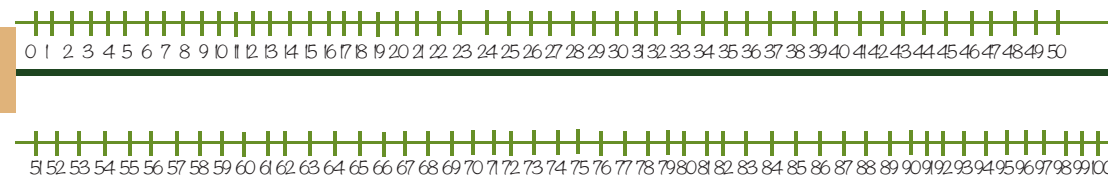
$$8 \times 3$$



$$8 \times 4$$



$$8 \times 5$$



SOLVE THE PROBLEM ON THE NUMBER LINE

8×6



8×7



8×8



8×9



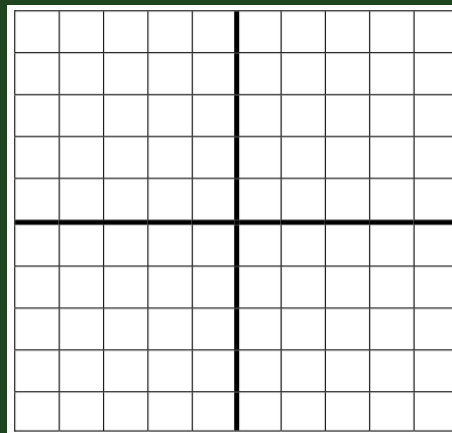
8×10



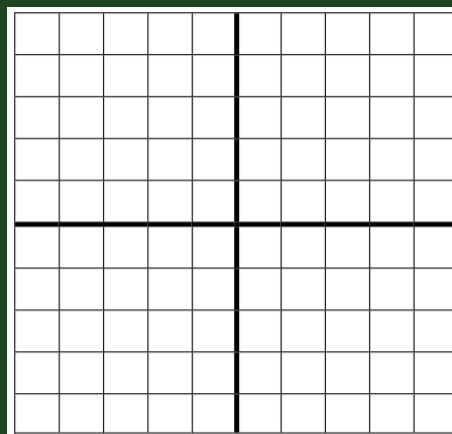
Array Flashcards

MODEL THE PROBLEMS ON THE GRIDS.

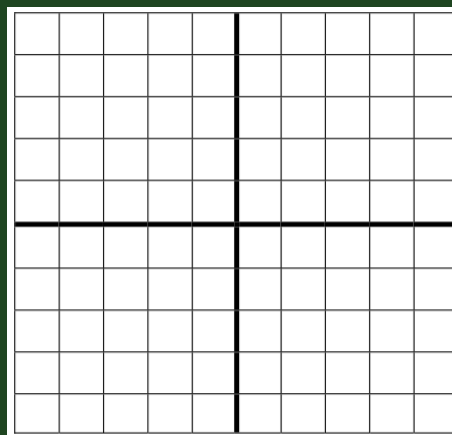
$$8 \times 1 = \underline{\quad}$$



$$8 \times 2 = \underline{\quad}$$



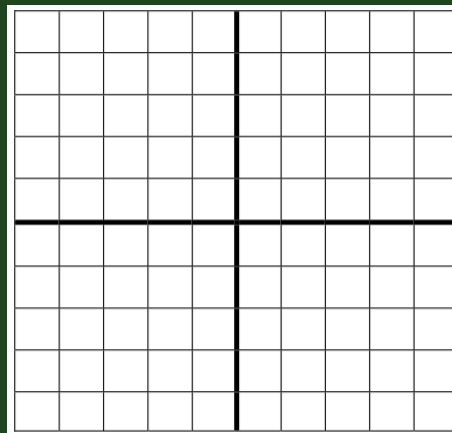
$$8 \times 3 = \underline{\quad}$$



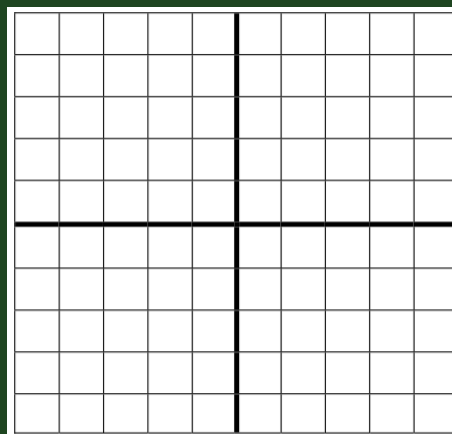
Array Flashcards

MODEL THE PROBLEMS ON THE GRIDS.

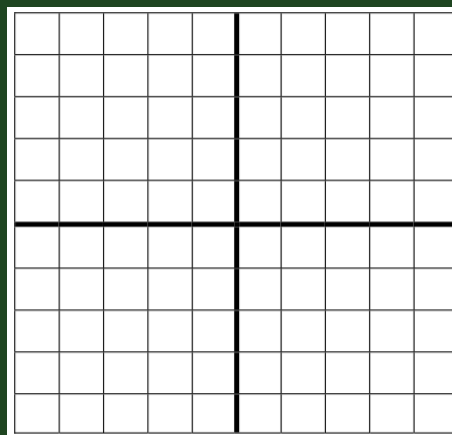
$$8 \times 4 = \underline{\quad}$$



$$8 \times 5 = \underline{\quad}$$



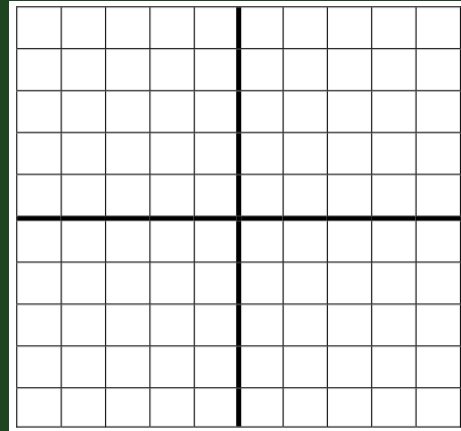
$$8 \times 6 = \underline{\quad}$$



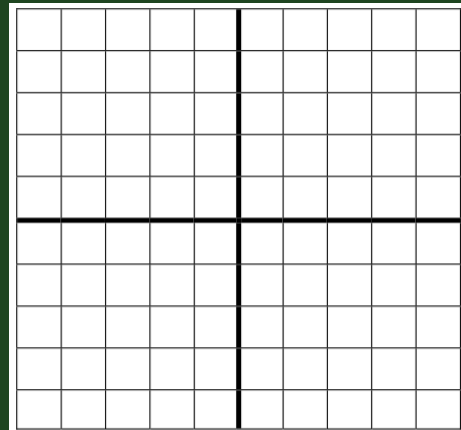
Array Flashcards

MODEL THE PROBLEMS ON THE GRIDS.

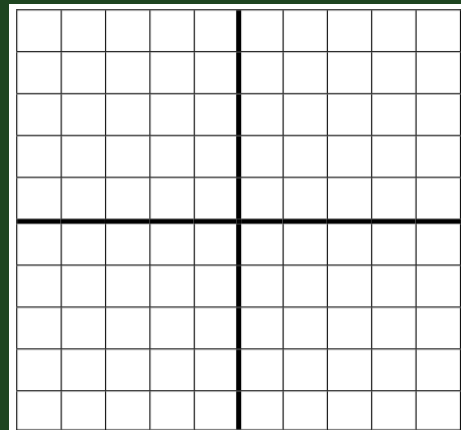
$$8 \times 7 = \underline{\quad}$$



$$8 \times 8 = \underline{\quad}$$



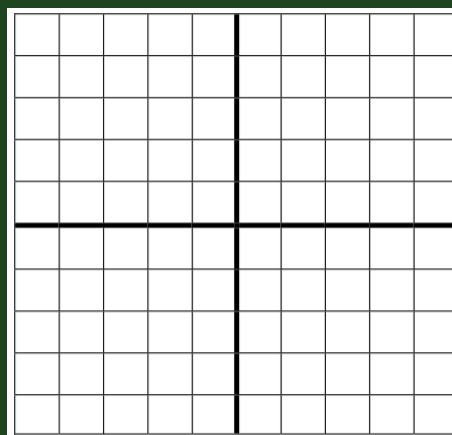
$$8 \times 9 = \underline{\quad}$$



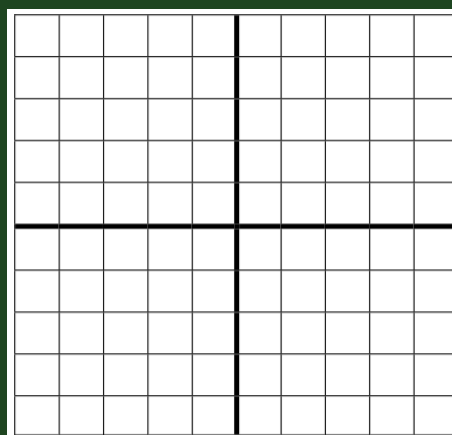
Array Flashcards

MODEL THE PROBLEMS ON THE GRIDS.

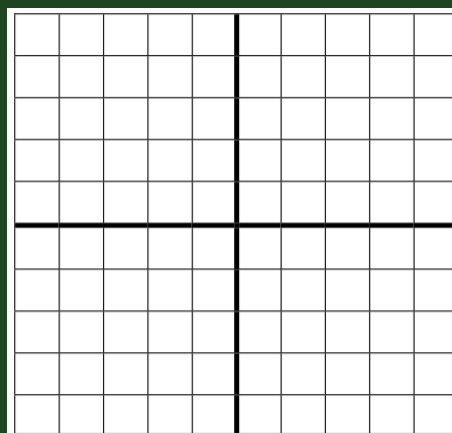
$$8 \times 10 = \underline{\quad}$$



FREE CHOICE



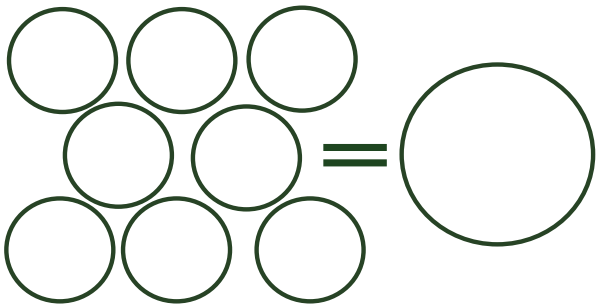
FREE CHOICE



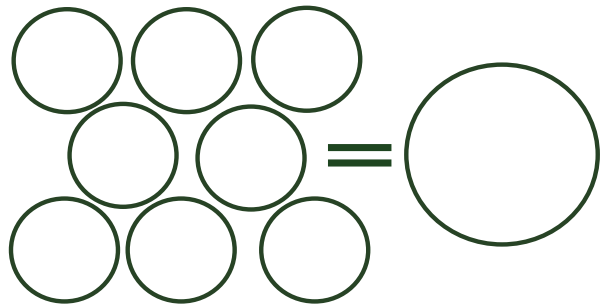
Equal Group Flashcards

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

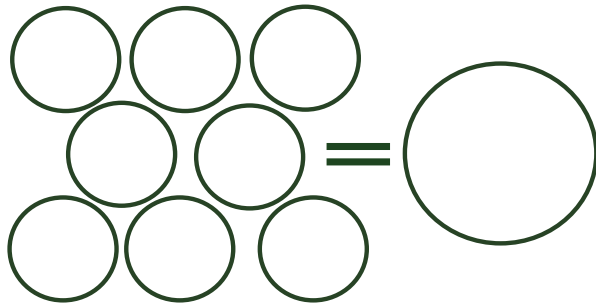
$$8 \times 0 = 0$$



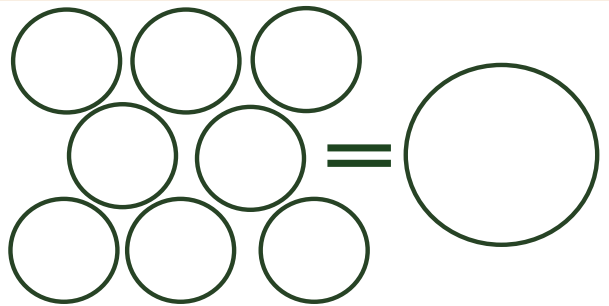
$$8 \times 1 = 8$$



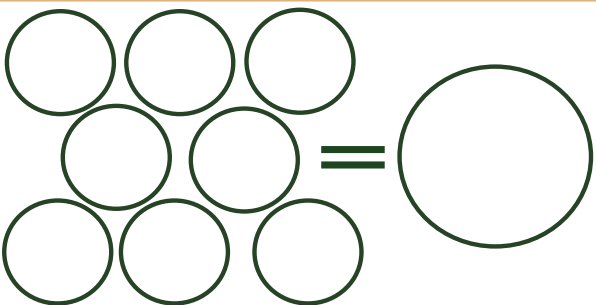
$$8 \times 2 = 16$$



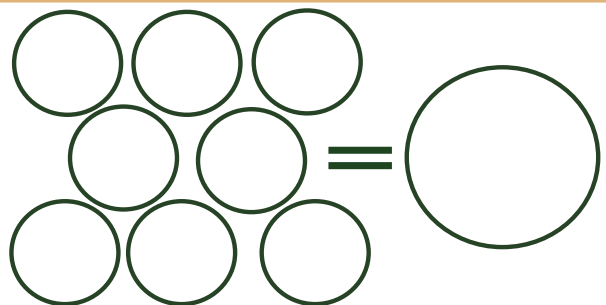
$$8 \times 3 = 24$$



$$8 \times 4 = 32$$



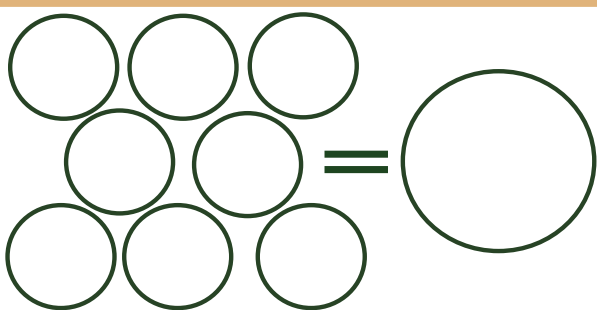
$$8 \times 5 = 40$$



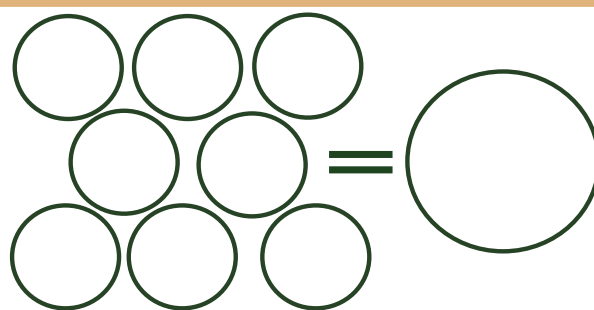
Equal Group Flashcards

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

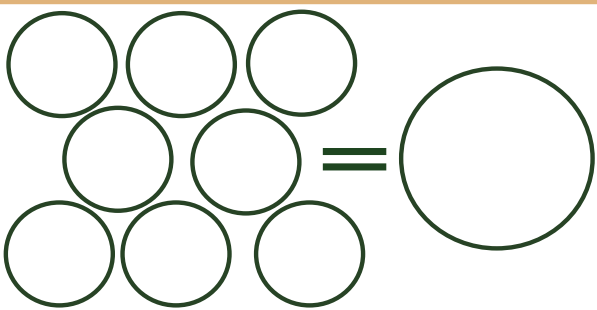
$$8 \times 6 = 48$$



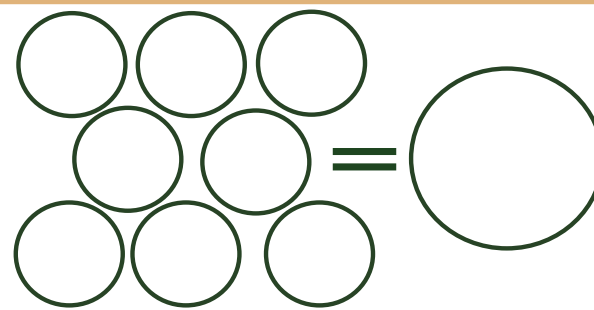
$$8 \times 7 = 56$$



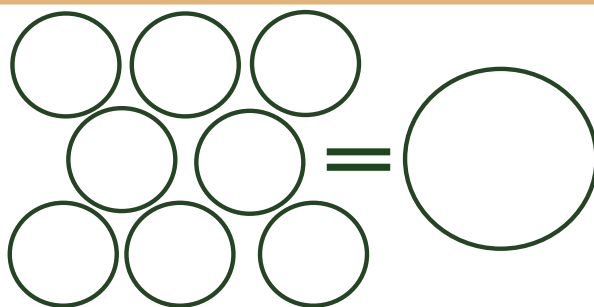
$$8 \times 8 = 64$$



$$8 \times 9 = 72$$



$$8 \times 10 = 80$$



Regular Flashcards

$$8 \times 0$$

$$8 \times 1$$

$$8 \times 2$$

$$8 \times 3$$

$$8 \times 4$$

$$8 \times 5$$

Regular Flashcards

$$8 \times 6$$

$$8 \times 7$$

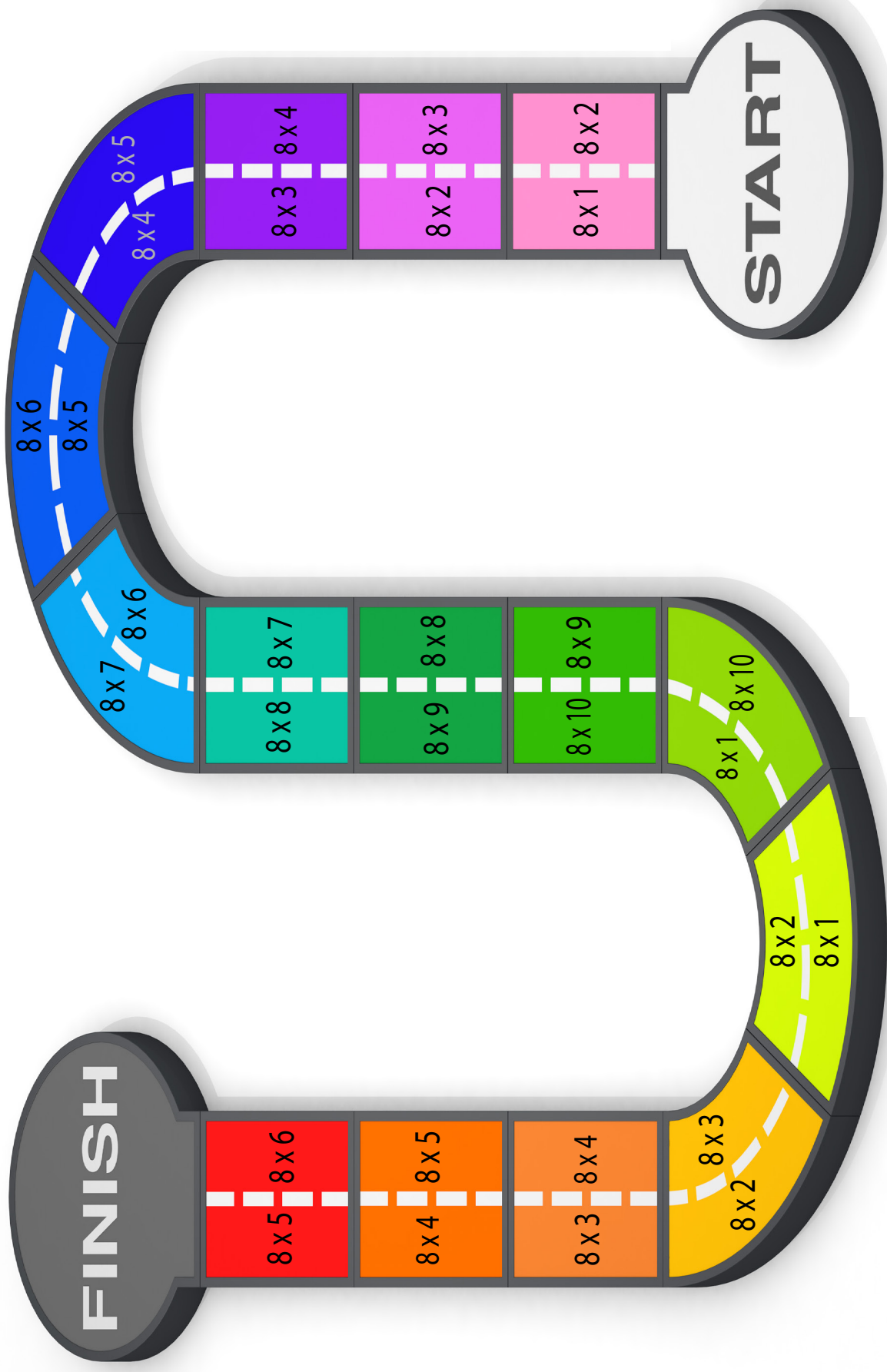
$$8 \times 8$$

$$8 \times 9$$

$$8 \times 10$$

MULTIPLICATION RACE

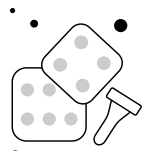
Directions: Play with a partner. Each player chooses a marker and a side. Decide who starts. Roll the die. Take turns moving. Player 1 says the product. Player 2 checks the answer using the bookmark. If it is correct, stay on the spot. If it is incorrect, move back one. Whoever reaches first wins.



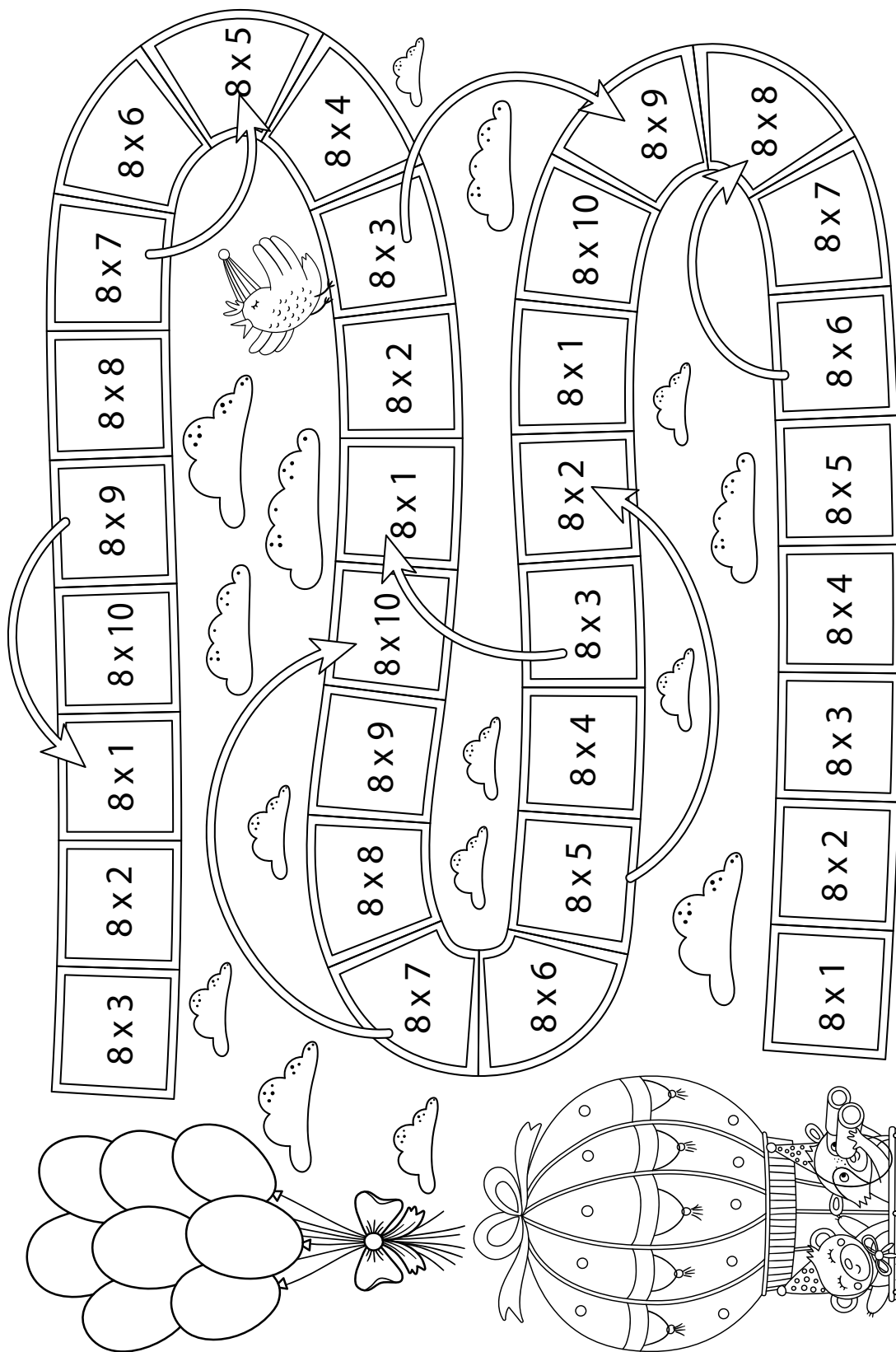


Multiplying by 8

Instructions: Roll the dice and move. Solve the problem on the space where you land. Whoever reaches the end first wins.

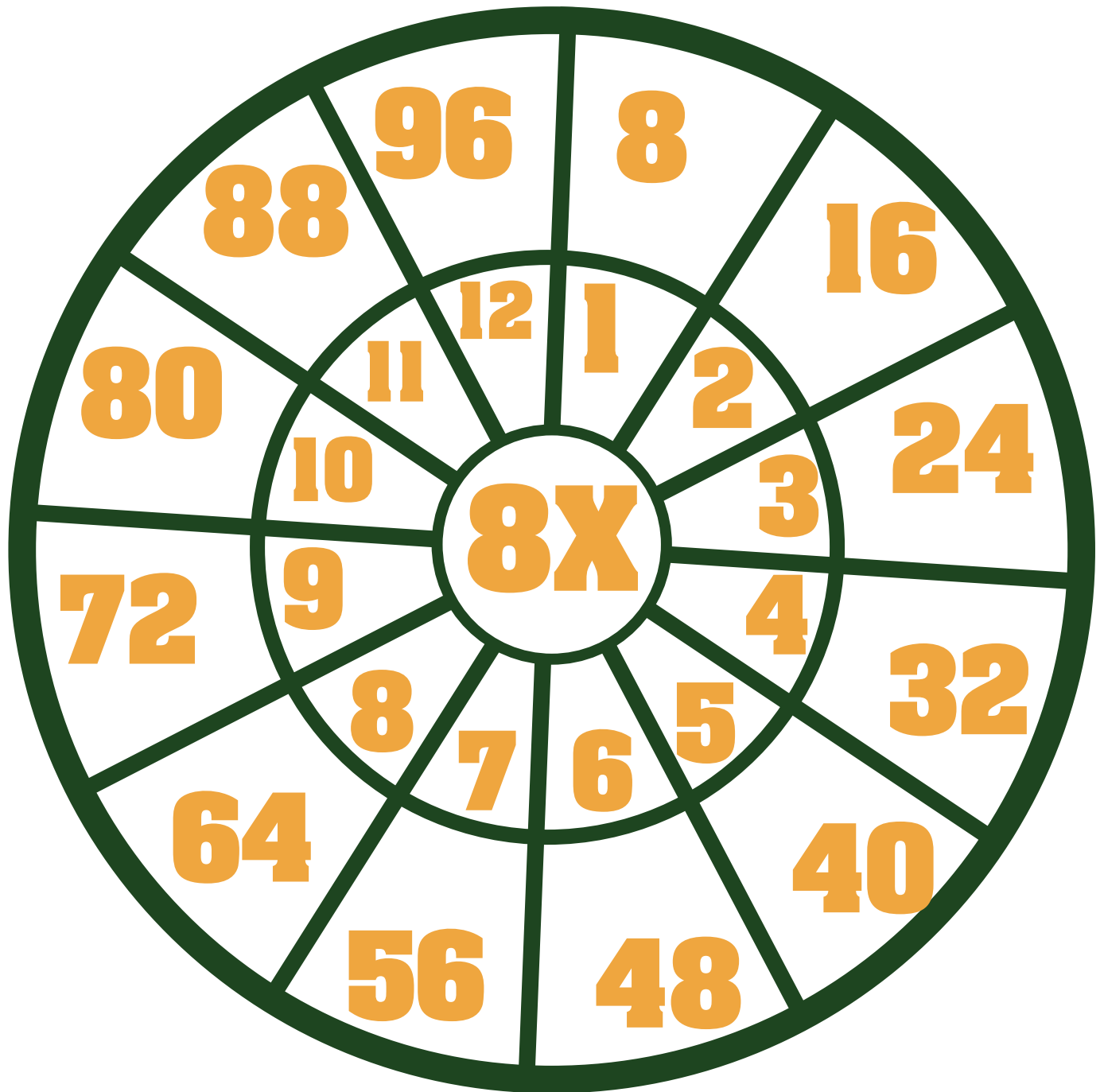


Help the animals get to the bunch of balloons

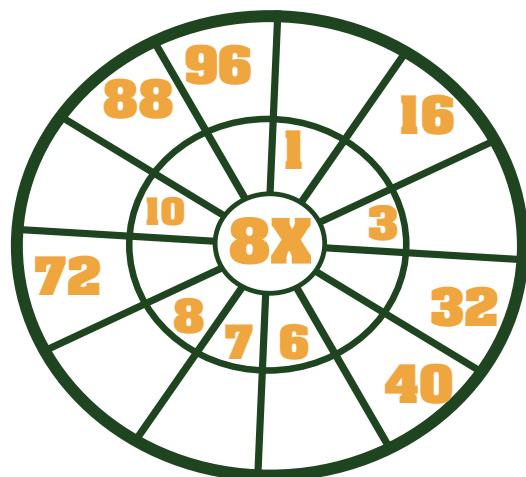
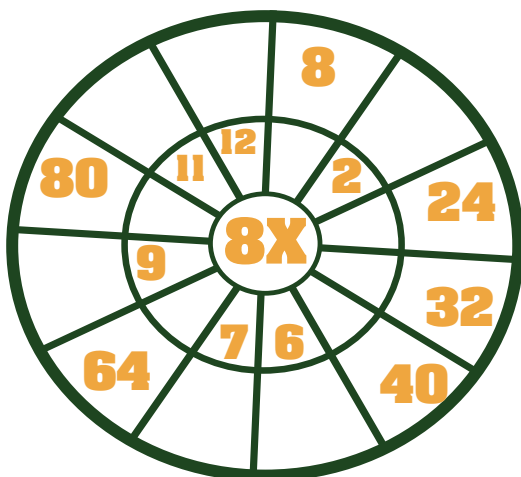
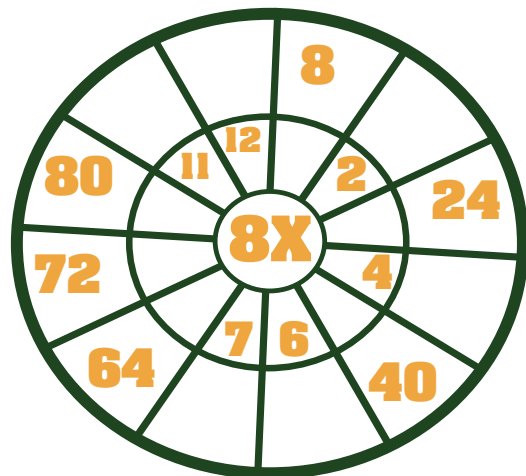
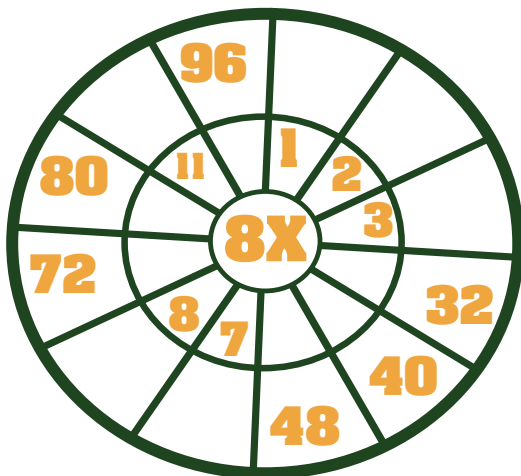
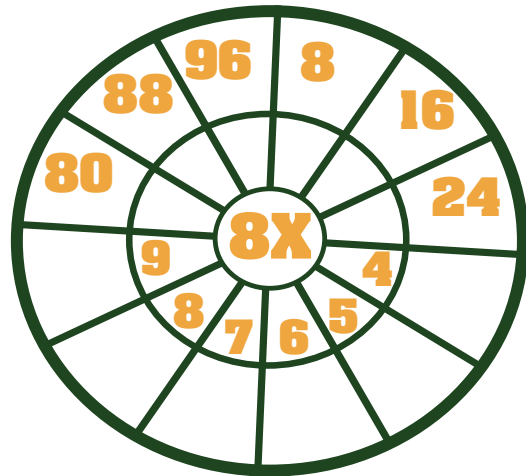
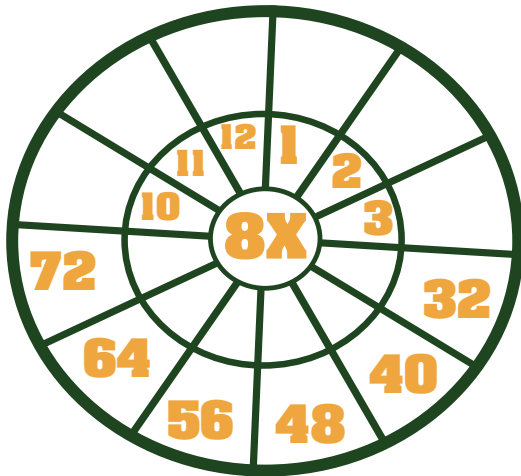


Hint: When you multiply by 4, double your 2s.

MULTIPLICATION WHEELS



MULTIPLICATION WHEELS



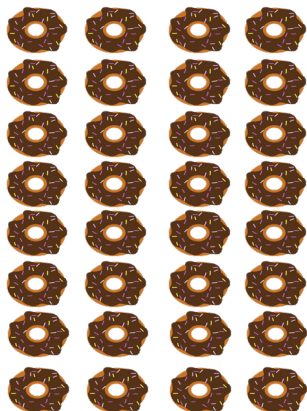
PICTURE FACT FAMILY



$$\begin{array}{rcl} \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{array}$$



$$\begin{array}{rcl} \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{array}$$

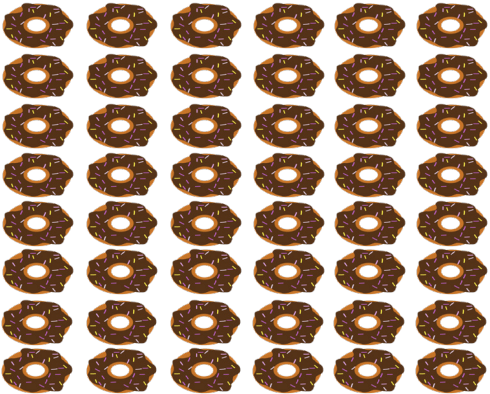


$$\begin{array}{rcl} \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{array}$$



$$\begin{array}{rcl} \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{array}$$

PICTURE FACT FAMILY

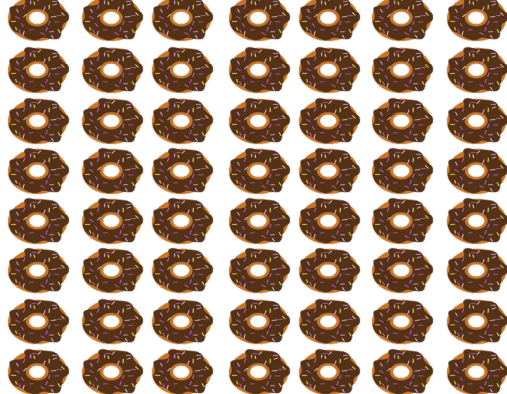


$\times$ =

 $\times$ =

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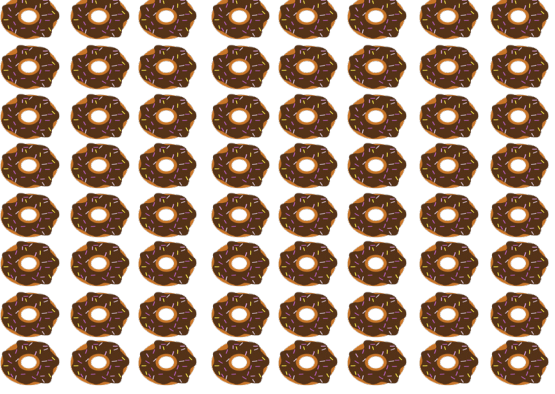


$\times$ =

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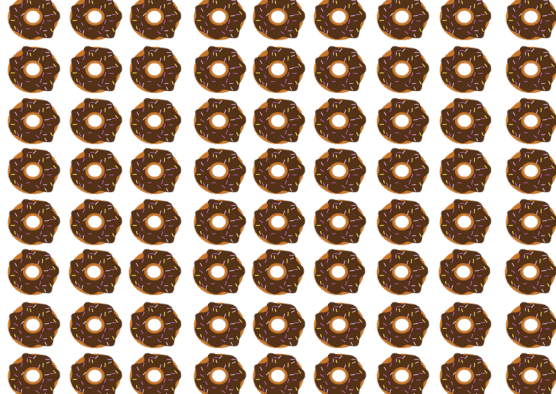


$\times$ =

 $\times$ =

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 $\div$ =



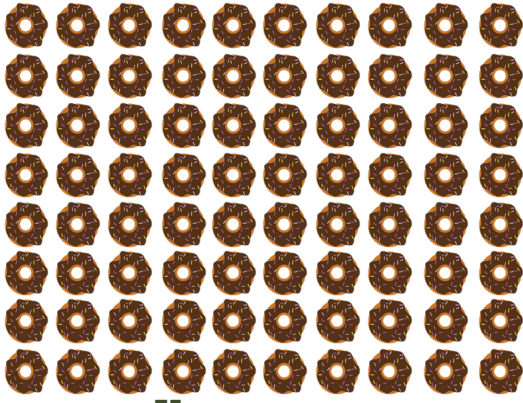
$\times$ =

 $\times$ =

 $\div$ =

 $\div$ =

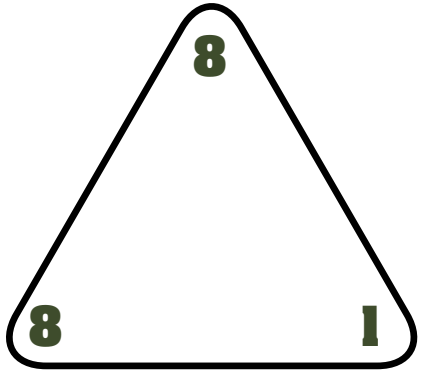
PICTURE FACT FAMILY

									
_____	x	_____	=	_____					
_____	x	_____	=	_____					
_____	÷	_____	=	_____					
_____	÷	_____	=	_____					

MAKE YOUR OWN

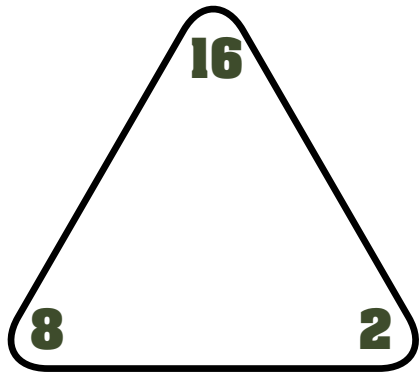
_____	x	_____	=	_____
_____	x	_____	=	_____
_____	÷	_____	=	_____
_____	÷	_____	=	_____

TRIANGLE FACT FAMILY



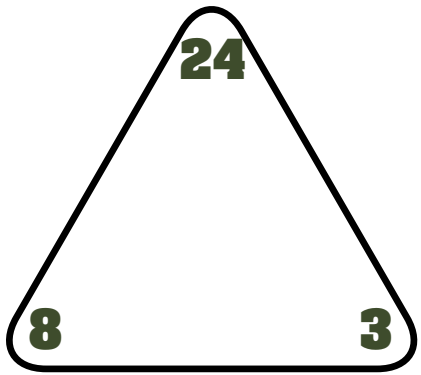
8 8 1

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$



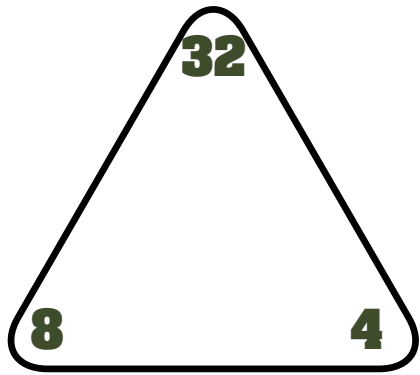
16 8 2

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$



24 8 3

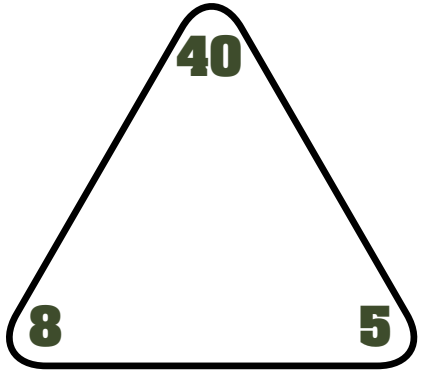
$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$



32 8 4

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$

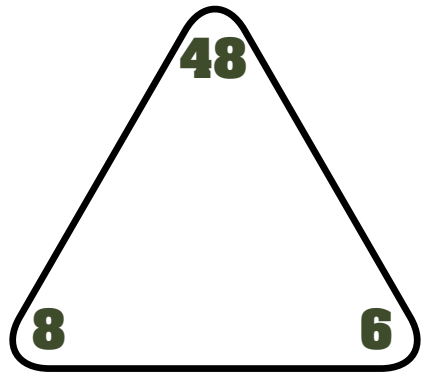
TRIANGLE FACT FAMILY



A triangle with the number 40 at the top vertex, 8 at the bottom-left vertex, and 5 at the bottom-right vertex.

Below the triangle are four rows of blank lines for multiplication and division facts:

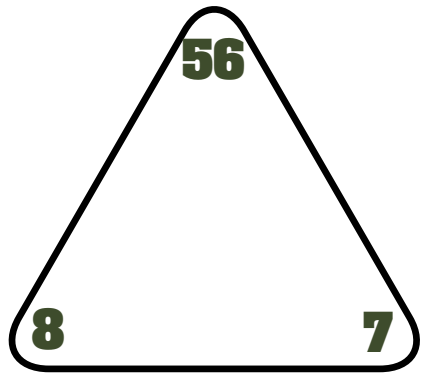
_____	x	_____	=	_____
_____	x	_____	=	_____
_____	÷	_____	=	_____
_____	÷	_____	=	_____



A triangle with the number 48 at the top vertex, 8 at the bottom-left vertex, and 6 at the bottom-right vertex.

Below the triangle are four rows of blank lines for multiplication and division facts:

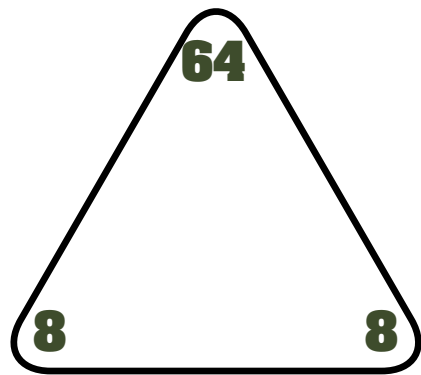
_____	x	_____	=	_____
_____	x	_____	=	_____
_____	÷	_____	=	_____
_____	÷	_____	=	_____



A triangle with the number 56 at the top vertex, 8 at the bottom-left vertex, and 7 at the bottom-right vertex.

Below the triangle are four rows of blank lines for multiplication and division facts:

_____	x	_____	=	_____
_____	x	_____	=	_____
_____	÷	_____	=	_____
_____	÷	_____	=	_____

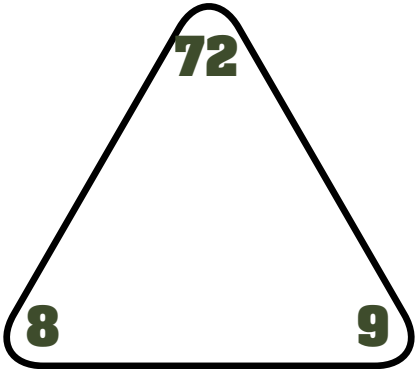


A triangle with the number 64 at the top vertex, 8 at the bottom-left vertex, and 8 at the bottom-right vertex.

Below the triangle are four rows of blank lines for multiplication and division facts:

_____	x	_____	=	_____
_____	x	_____	=	_____
_____	÷	_____	=	_____
_____	÷	_____	=	_____

TRIANGLE FACT FAMILY



72

8

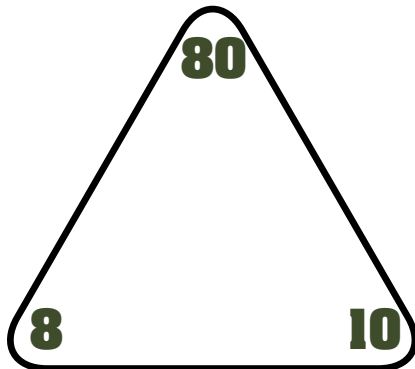
9

$\times$ =

$\times$ =

$\div$ =

$\div$ =



80

8

10

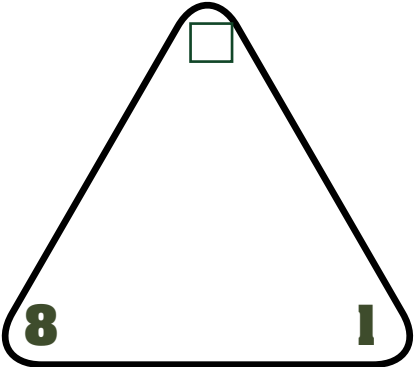
$\times$ =

$\times$ =

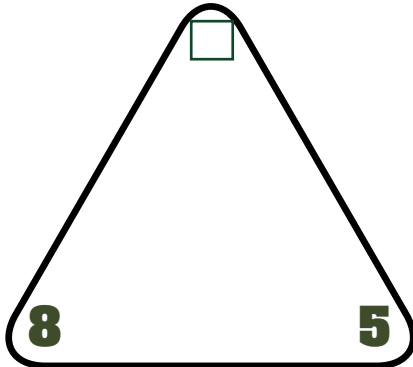
$\div$ =

$\div$ =

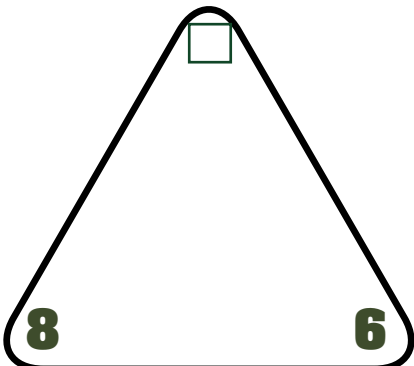
TRIANGLE FACT FAMILY



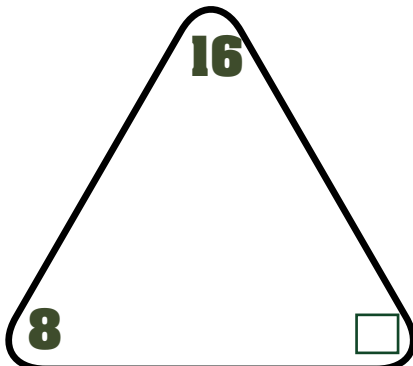
$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$



$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$

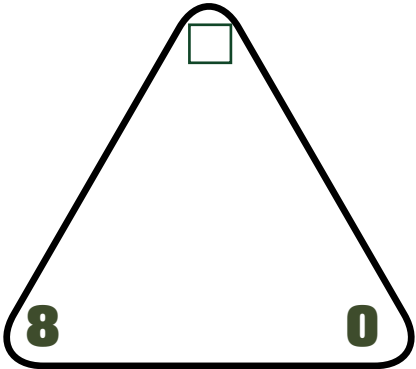


$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$



$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$

TRIANGLE FACT FAMILY



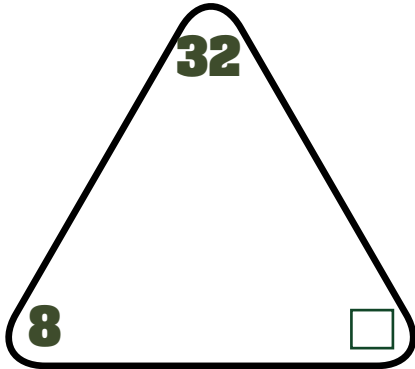
8 0

$\times$ =

 $\times$ =

 $\div$ =

 $\div$ =



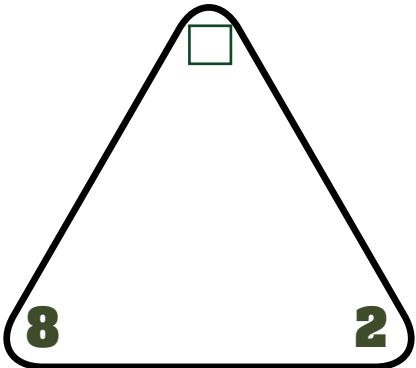
32 8

$\times$ =

 $\times$ =

 $\div$ =

 $\div$ =



8 2

$\times$ =

 $\times$ =

 $\div$ =

 $\div$ =

WORD PROBLEM

Write an 8's fact in each box. Then follow the instructions in each box to match the fact.

THE BAKERY HAD 8 ROWS OF DONUTS. THERE WERE 5 DONUTS IN EACH ROW. HOW MANY DONUTS DID THEY HAVE ALTOGETHER?

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

THE BAKERY HAD 8 BOXES WITH 3 DONUTS IN EACH. HOW MANY DONUTS DID THEY HAVE?

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

THERE WERE 8 BAGS OF DONUTS IN THE BAKERY. EACH BAG HAD 7 DONUTS INSIDE. HOW MANY DONUTS WERE THERE ALTOGETHER?

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

THE BAKERY HAD 8 BOXES OF DONUTS WITH 9 DONUTS IN EACH BOX. HOW MANY DONUTS DID THEY HAVE ALTOGETHER?

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

QUIZ

MODEL YOUR THINKING AND SOLVE THE PROBLEM

**I CAN SKIP COUNT
BY 8'S!**

**I CAN REPRESENT 8'S
WITH EQUAL GROUPS!**

**I CAN REPRESENT 8'S
WITH ARRAYS!**

**I CAN REPRESENT 8'S
ON THE NUMBER LINE.**

**I CAN USE REPEATED
ADDITION FOR MY 8'S.**

**MY STRATEGY FOR
THINKING ABOUT 8'S IS..**

CERTIFICATE

★ GREAT MATH WORK! ★

HAS SUCCESSFULLY PRACTICED THE
8 TIMES TABLES!

GREAT JOB!

TEACHER: _____ DATE: _____

○
8

Multiplication

$$\begin{aligned}8 \times 1 &= 8 \\8 \times 2 &= 16 \\8 \times 3 &= 24 \\8 \times 4 &= 32 \\8 \times 5 &= 40 \\8 \times 6 &= 48 \\8 \times 7 &= 56 \\8 \times 8 &= 64 \\8 \times 9 &= 72 \\8 \times 10 &= 80\end{aligned}$$

Hint: Think Double 4's

○
8

MULTIPLICATION

$$\begin{aligned}8 \times 1 &= 8 \\8 \times 2 &= 16 \\8 \times 3 &= 24 \\8 \times 4 &= 32 \\8 \times 5 &= 40 \\8 \times 6 &= 48 \\8 \times 7 &= 56 \\8 \times 8 &= 64 \\8 \times 9 &= 72 \\8 \times 10 &= 80\end{aligned}$$

Hint: Think Double 4's

○
8

MULTIPLICATION

$$\begin{aligned}8 \times 1 &= 8 \\8 \times 2 &= 16 \\8 \times 3 &= 24 \\8 \times 4 &= 32 \\8 \times 5 &= 40 \\8 \times 6 &= 48 \\8 \times 7 &= 56 \\8 \times 8 &= 64 \\8 \times 9 &= 72 \\8 \times 10 &= 80\end{aligned}$$

Hint: Think Double 4's