

# Multiplication Strategies

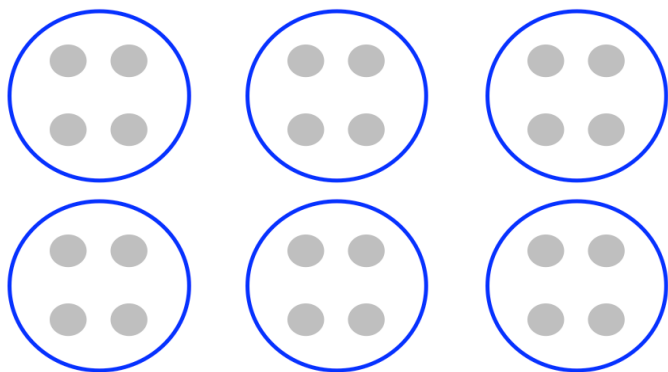
## Using Equal Groups

$$6 \times 4 = ?$$

(6 groups of 4)

Create 6 groups. Now put 4 dots in each group. How many total dots do you have?

That's your answer!



24 total dots so the answer is 24.

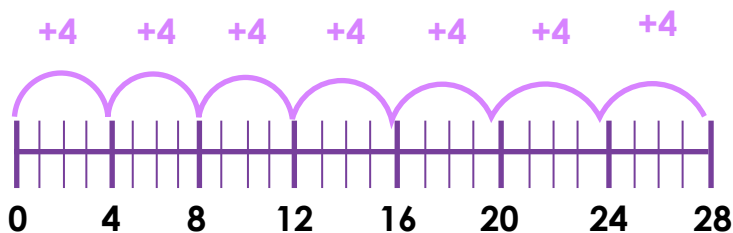
## Using a Numberline

$$7 \times 4 = ?$$

(7 jumps of 4)

Create a number line. Make 7 jumps of 4- that means jump 4 spaces a total of seven times. What is your ending point?

That is the product (answer)!



You made 7 jumps of 4 so the answer is 28.

$$5 \times 4 = 20$$

factor

factor

product

## Using an Array

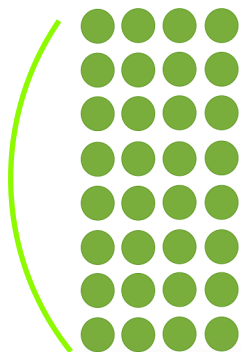
$$8 \times 4 = ?$$

(8 rows of 4)

You know that your first factor is 8. That means you will have 8 rows. Your second factor tells you how many are in each row (4).

How many total dots are there? That is the product!

8 rows with 4 in each row; the product is 32!



## Repeated Addition

$$5 \times 6 = ?$$

(5 addends of 6)

Start at 0 and add 6 a total of 5 times. What is the number you ended at? That is the answer!

$$0 + 6 = 6$$

$$6 + 6 = 12$$

$$12 + 6 = 18$$

$$18 + 6 = 24$$

$$24 + 6 = 30$$

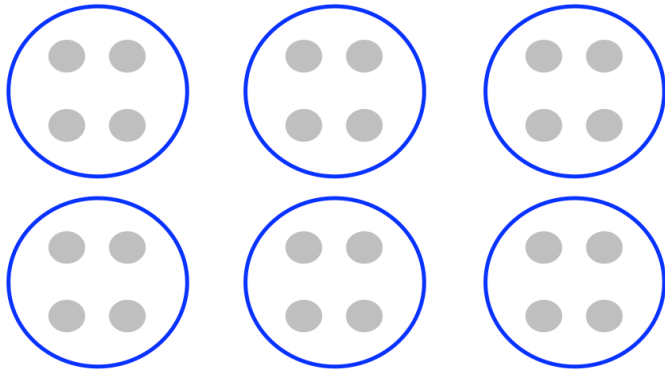
Adding 6 five times will give you an answer of 30!

# Division Strategies

## Using Equal Groups

$$24 \div 6 = ?$$

Create 6 groups. Now put 1 dot in each group until you get to 24. How many dots are in each group? That's your answer!

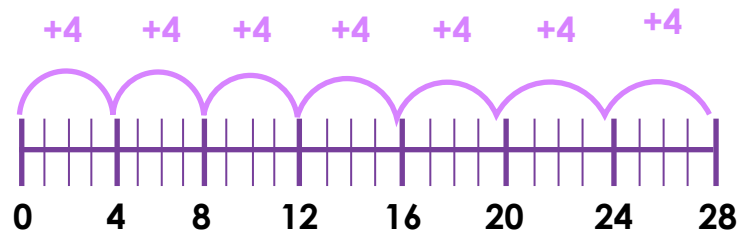


4 dots in each group  
so the answer is 4.

## Using a Numberline

$$28 \div 4 = ?$$

Create a number line that goes from 0 to 28. Now, make jumps of 4 until you get to 28. How many jumps did you make? That is the quotient!



7 jumps so the  
answer is 7.

$$20 \div 5 = 4$$

dividend    divisor    quotient

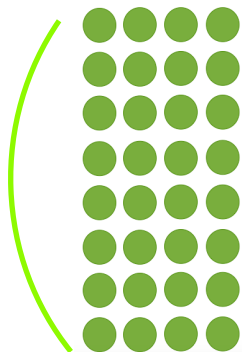
## Using an Array

$$32 \div 8 =$$

You know that your divisor is 8. That means you will have 8 rows.

Now add 1 dot in each row until you get to a total of 28 dots. How many dots are in each row? That is the quotient!

8 rows with  
4 in each  
row so the  
quotient is 4!



## Repeated Subtraction

$$36 \div 6 = ?$$

Start at 36 and subtract 6 until you get to 0. Then count the number of times you subtracted 6. That is the answer!

$$\begin{aligned} 36 - 6 &= 30 \\ 30 - 6 &= 24 \\ 24 - 6 &= 18 \\ 18 - 6 &= 12 \\ 12 - 6 &= 6 \\ 6 - 6 &= 0 \end{aligned}$$

You  
subtracted 6  
times so the  
answer is 6!

# Alternative Division Strategies

## Repeated Subtraction (by Adding Up)

$$36 \div 6 = ?$$

Start at 0 and add 6 until you get to 36.  
Then count the number of times you added 6. That is the answer!

$$\begin{aligned} 0 + 6 &= 6 \\ 6 + 6 &= 12 \\ 12 + 6 &= 18 \\ 18 + 6 &= 24 \\ 24 + 6 &= 30 \\ 30 + 6 &= 36 \end{aligned}$$

You added  
6 times so  
the answer  
is 6!

## Fact Families

$$21 \div 7 = ?$$

Division is the inverse (or opposite) of multiplication. You can use multiplication fact families to solve!

$$7 \times 3 = 21$$

$$3 \times 7 = 21$$

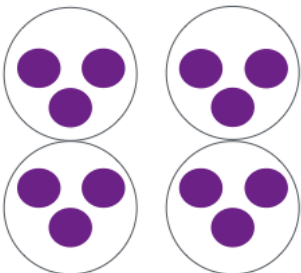
$$21 \div 3 = 7$$

$$21 \div 7 = \underline{3}$$

## Using Equal Amounts and Making Groups

$$12 \div 3 = ?$$

Make sets of 3 dots until you have a total of 24 dots. Now circle each group. How many groups are there? That's your answer!



There are 4  
groups so  
the answer  
is 4!

## Using an Array

$$28 \div 4 =$$

You know that your divisor is 4. That means you can make rows with 4 dots in each row until you reach 28. How many rows do you have?  
That is the quotient!

There are 7  
total rows so  
the answer  
is 7!

