

Tools for Division

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Key Words



dividend

divisor

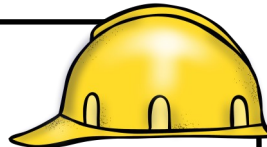
quotient



$$32 \div 4 = 8$$



A Number Divided by 0



If there are no groups there is
nothing to divide.

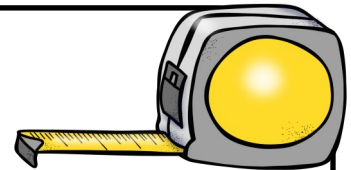
0 divided by any number is 0.

$$0 \div 9 = 0$$

If there are 0 cookies and 9 children
there are no cookies to share.



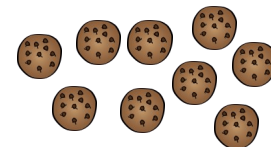
Division by 1



A dividend divided by 1 equals
the number.

$$9 \div 1 = 9$$

If there are 9 cookies and 1 child then he
gets all the cookies.

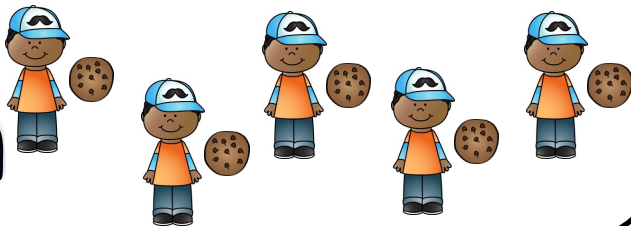


A Number Divided by Itself

A number divided by itself is 1.

$$5 \div 5 = 1$$

If there are 5 cookies and 5 children then each child gets 1.



Tools for
Division

Half-Divide by 2

A dividend divided by 2 is half.

Use double facts to solve.

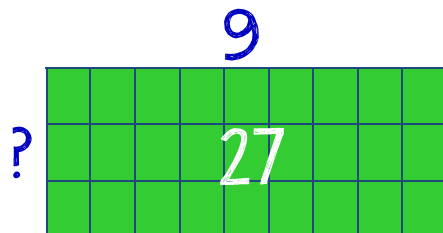
$2 \div 2 = 1$ 	$4 \div 2 = 2$ 	$6 \div 2 = 3$ 	$8 \div 2 = 4$ 	$10 \div 2 = 5$
$12 \div 2 = 6$ 	$14 \div 2 = 7$ 	$16 \div 2 = 8$ 	$18 \div 2 = 9$ 	$20 \div 2 = 10$

Tools for
Division

Think Multiplication

Use multiplication to solve division problems.

$$27 \div 9 = \boxed{?} \text{ Think } 9 \times \boxed{?} = 27$$



Tools for
Division

Half & Double

Halve the dividend and double the quotient if it makes it easier to calculate.

You will get the same answer!

$64 \div 4$. Think half of 64 is 32. $32 \div 4 = 8$.
Then double the quotient (8).
 $8 \times 2 = 16$

Tools for
Division

Divide in Small Steps

Factor the Divisor

Decompose the divisor into smaller parts (factors) so that you can make the problem easier to solve.

$54 \div 18$. Change 18 into 6 and 3.

Think $(54 \div 6) \div 3 = 9 \div 3 = 3$.



Compensation

Multiply or divide the dividend and the divisor by the same number to make the problem easier to solve.

$$\begin{array}{ccc} & 48 \div 12 & \\ \swarrow & & \searrow \\ (48 \div 4) \div & & (12 \div 4) \\ \searrow & & \swarrow \\ & 12 \div 3 & \end{array}$$



Cancel Zeros

Divide by a multiple of 10 first.

Remove the same number of zeros from the end of both the dividend and the divisor.

$$360 \div 60$$

Think $36 \div 6$

