

Divisibility

Rules



What is Divisibility?

Divisibility
means that
after dividing,
there will be
NO
remainder.



356,821

- Can you tell by just looking at this number if it is divisible by 2?
- by 5?
- by 10?
- by 3?
- by 9?
- By 6?

• The divisibility rules

can help

YOU !!!

Divisibility Rules

help you learn shortcuts to tell when a number can be divided by another number with NO remainder.



Divisibility by 2

- A number is divisible by 2 if the number is even.

$$\underline{18} \div 2 = 9$$

$$\underline{22} \div 2 = 11$$

(Notice that both of these numbers are even.)

$$\underline{21} \div 2 = 10 \text{ R}1$$

(Not an even number.)

Are these numbers divisible
by 2?

•127

(Not an even number)

•937

(Not an even number)

•4678

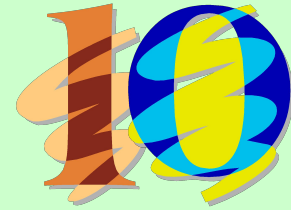
Divisibility by 5

- A number is divisible by 5 if it ends in 0 or 5.

$$25 \div 5 = 5$$

$$23 \div 5 = 4 \text{ R}3$$

Divisibility by



• A number is divisible by 10 if it ends in 0.







$$\cdot 30 \div 10 = 3$$

$$\cdot 340 \div 10 = 34$$

$$\cdot 67 \div 10 = 6 \text{ R}7$$

$$\cdot 784 \div 10 = 78 \text{ R}4$$

Divisibility By:

	2	5	10
1825			
346			
510			
1108			

Divisibility by 3

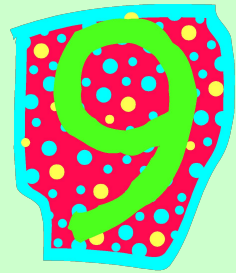
- A number is divisible by 3 if the sum of the digits is divisible by 3.

Is the number 135 divisible by 3?

$$\text{Add the digits: } 1 + 3 + 5 = 9$$

Yes, 135 is divisible by 3 because the sum of the digits is divisible by 3.

Divisibility by



• A number is divisible by 9 if the sum of its digits is divisible by 9.

• 369 is divisible by 9

because

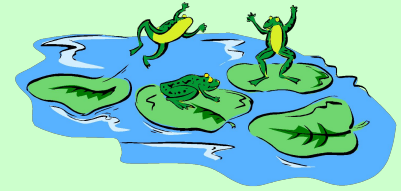
• $3 + 6 + 9 = 18$

• $1 + 8 = 9$

AND

9 is divisible by 9.

Divisibility by 6



- A number is divisible by 6 if it is divisible

by both

2 and 3.

- Is 42 divisible by 6?
- Is 51 divisible by 6?

After All...DIVISIBILITY Rules!!

