

Divisibility

A number a is **divisible** by another number b if the division $a \div b$ is exact (no remainder).

For example, $18 \div 3 = 6$. So, 18 is divisible by 3. Also, 18 is divisible by 6, because we can write the other division $18 \div 6 = 3$. So, 18 is divisible by both 6 and 3.

We say 6 and 3 are *divisors* or *factors* of 18.

You can use long division to check if a number is divisible by another.

$$\begin{array}{r} 16 \\ 4 \overline{) 67} \\ \underline{-4} \\ 27 \\ \underline{-24} \\ 3 \end{array}$$



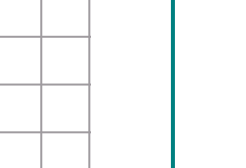
$67 \div 4 = 16, R3$. There is a remainder, so 67 is *not* divisible by 4.

Also, from this we learn that neither 4 nor 16 is a factor (divisor) of 67.

1. Divide and determine if the numbers are divisible by the given number.

a. $21 \div 3 = \underline{\hspace{2cm}}$ Is 21 divisible by 3?	b. $40 \div 6 = \underline{\hspace{2cm}}$ Is 40 divisible by 6?	c. $17 \div 5 = \underline{\hspace{2cm}}$ Is 5 a divisor of 17?	d. $84 \div 7 = \underline{\hspace{2cm}}$ Is 7 a factor of 84?
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2. Answer the questions. You may need long division.

<p>a. Is 98 divisible by 4?</p> 	<p>b. Is 603 divisible by 7?</p> 	<p>c. Is 3 a factor of 1,256?</p> 
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