

Divisibility

If there is no remainder, we say **division is exact**. For example,

$$18 \div 9 = 2, \text{ the remainder is } 0.$$

$$24 \div 4 = 6, \text{ R } 0.$$

$$33 \div 11 = 3, \text{ R } 0.$$

We say: **18 is divisible by 9.**

24 is divisible by 4.

33 is divisible by 11.

If there *is* a remainder, we say **division is not exact**. For example,

$$15 \div 4 = 3, \text{ remainder } 3.$$

$$17 \div 7 = 2, \text{ R } 3.$$

$$20 \div 3 = \underline{\quad}, \text{ R } \underline{\quad}.$$

15 is NOT divisible by 4.

17 is not divisible by 7.

20 is not divisible by 3.

1. Follow the example and find if the following numbers are divisible by given numbers.

<p>a. Is 15 divisible by 5?</p> <p>Yes, because $15 \div 5 = 3, \text{ R } 0.$</p>	<p>b. Is 22 divisible by 2?</p> <p>Yes/no, because</p>
<p>c. Is 17 divisible by 5?</p> <p>No, because $17 \div 5 = 3, \text{ R } 2.$ There is a remainder.</p>	<p>d. Is 14 divisible by 3?</p> <p>Yes/no, because</p>
<p>e. Is 24 divisible by 5?</p> <p>Yes/no, because</p>	<p>f. Is 30 divisible by 5?</p> <p>Yes/no, because</p>
<p>g. Is 17 divisible by 3?</p>	<p>h. Is 27 divisible by 3?</p>
<p>i. Is 14 divisible by 3?</p>	<p>j. Is 48 divisible by 12?</p>