**MULTIPLYING REAL NUMBERS**

* The product of two real numbers with the same sign is positive.
* The product of two real numbers with different signs is negative.

**Sample Problem 1**: Find the product.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Sample Problem 2**: Simplify each expression.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Sample Problem 3**: Evaluate each expression if .

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Sample Problem 4**: An average person need to drink 3 liters of water a day. How many liters of water an average person drinks in a month?

**DIVISION RULE**

To divide a number by a nonzero number , multiply by the reciprocal of .

The result is the quotient of and .

**Sample Problem 5**: Find the quotient.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**THE SIGN OF A QUOTIENT**

* The quotient of two numbers with the same sign is positive
* The quotient of two numbers with opposite signs is negative.

**Sample Problem 6**: Simplify each expression.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Sample Problem 7**: Evaluate each expression if and .

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Sample Problem 8**: Russia has a land area of Russia is approximately seven times bigger than Algeria in terms of land area. What is the land area of Algeria?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |