

DO NOW

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1.5 Closure Property

Closure Property - Every pair of numbers chosen from a given set with a given operation results in a number from the given set.

Whole numbers - $\{0, 1, 2, 3, 4, \dots\}$
addition - closed
subtraction - not closed
multiplication - closed
division - not closed

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Integers - $\{\dots, -3, -2, -1, 0, 1, 2, 3, \dots\}$
addition - closed
subtraction - closed
multiplication - closed
division - not closed
squaring - closed

Rational numbers - any number that can be written as a fraction
addition - closed
subtraction - closed
multiplication - closed
division - not closed (dividing by 0 is undefined)
squaring - closed

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Real numbers - any number that can be found on a number line

closed for: addition, subtraction, multiplication, squaring

$\{-1, 0, 1\}$ -

closed for multiplication and squaring

$1 + 1 = 2$ NOT CLOSED for +

$-1 - 1 = -2$ NOT CLOSED for -

$\frac{1}{0} = \text{undefined}$ NOT CLOSED for \div

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HOMEWORK

Worksheet - HW 1.5 Properties 2

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