

Þessu blaði þarf ekki að skila með próflausninni. – You do not need to turn in this sheet with your solution.

- Math

- `double abs(double a)` absolute value of `a`
- `double max(double a, double b)` maximum of `a` and `b`
- `double min(double a, double b)` minimum of `a` and `b`
- `double pow(double a, double b)` raise `a` to the `b`-th power ( $a^b$ )
- `double log(double a)` natural logarithm of `a`
- `double exp(double a)` exponential ( $e^a$ )
- `double sqrt(double a)` square root of `a`

- String

- `int length()` string length
- `char charAt(int i)` `i`-th character
- `String substring(int i, int j)` `i`-th through (`j`-1)-st characters
- `int compareTo(String b)` comparison, `a.compareTo(b)` returns a value  $< 0$  if `a` string is before `b` in alphabetical order, returns  $> 0$  if `b` is before `a` and returns  $0$  if both strings are equal
- `boolean equals(String t)` returns true if this has the same value as `t`

- Vector<E>

- `boolean add(E o)`: appends the specified element to the end of this list.
- `E get(int index)`: returns the element at the specified position.
- `int indexOf(Object o)`: returns index of the first occurrence of element, or  $-1$  if it's not there.
- `boolean isEmpty()`: returns true if this list contains no elements.
- `E set(int index, E element)`: replaces element at the specified position (returns old element).
- `int size()`: returns the number of elements in this list.

- Point2D

- `Point2D(double x, double y)`: creates a new point with coordinates `x` and `y`
- `double getX()`: returns the `x`-coordinate of the point
- `double getY()`: returns the `y`-coordinate of the point

- Rectangle

- `Rectangle(double x, double y, double w, double h)`: creates a new rectangle centered at `x, y` with height `h` and width `w`.
- `double getWidth()`: returns the width of the rectangle
- `double getHeight()`: returns the height of the rectangle
- `Point2D getCenter()`: returns the center of the box