Lexer **Evaluator** - postfixExpression: Queue<Token> + Tokenize(expression: String) : Queue<Token> + Evaluator(postfixExpression: Queue<Token>) + Evaluate() : Double «enumeration» **Token TokenType** None = 0- type: TokenType Number = 1- value: String Function = 2- validTokens: Dictionary<String, TokenType> FunctionArgSeparator = 3 type Operator = 4+ Type { get; } : TokenType + Value { get; } : String LeftParen = 5+ Token(value: String) RightParen = 6- Token() - GetTokenType() : TokenType Λ_1 ор «delegate» Operator EvaluationDelegate Double x - operatorInfo: Dictionary<String, Tuple<Int32, String, EvaluationDelegate>> Double y = 0- op: Token + Op { get; } : Token + Precedence { get; } : Int32 + Associativity { get; } : String + Operation { get; } : EvaluationDelegate + Operator(token: Token)

Function

+ Call(function: String, argumentStack: Stack<Token>): Double

- GetArg(argumentStack: Stack<Token>): Double

ShuntingYard

- <u>CloneQueue(queue: Queue<Token>) : Queue<Token></u>

- infixTokens: Queue<Token>

+ PostfixTokens { get; } : Queue<Token>

- InfixToPostfix() : Queue<Token>

+ ShuntingYard(infixTokens: Queue<Token>)

MainClass

+ Main(args: String[]) : Void

+ TestCases(): Void

+ MainClass()