Name: *Orion Hess*

Assignment: 3

Complete and Correct: ....   30 / 30
Testing: ....   0 / 5
Clean Code: ....   2 / 2
Writeup: ....   3 / 3

Total Score: ....   35 / 40

Comments:

1. (-5) no additional tests

Unit test output:

```
[INFO] Scanning for projects...
[INFO]
[INFO] ----------------------< cpsc326:cpsc326-mypl >-----------------------
[INFO] Building cpsc326-mypl 1
[INFO] --------------------------------[ jar ]---------------------------------
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ cpsc326-mypl ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/matt/Space/work/s25/cpsc326/hw3/hw3-imaducklol/src/main/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ cpsc326-mypl ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ cpsc326-mypl ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/matt/Space/work/s25/cpsc326/hw3/hw3-imaducklol/src/test/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ cpsc326-mypl ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 4 source files to /home/matt/Space/work/s25/cpsc326/hw3/hw3-imaducklol/target/test-classes
[INFO]
[INFO] --- maven-surefire-plugin:3.3.1:test (default-test) @ cpsc326-mypl ---
[INFO] Using auto detected provider org.apache.maven.surefire.junitplatform.JUnitPlatformProvider
[INFO]
[INFO] -------------------------------------------------------
[INFO]  T E S T S
[INFO] -------------------------------------------------------
[INFO] Running cpsc326.ASTParserTests
[INFO] Tests run: 57, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.072 s -- in cpsc326.ASTParserTests
[INFO] cpsc326.ASTParserTests.emptyFunctionOneBaseTypeParam -- Time elapsed: 0.013 s
[INFO] cpsc326.ASTParserTests.simpleNewStructExpression -- Time elapsed: 0.002 s
[INFO] cpsc326.ASTParserTests.twoEmptyFunctions -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.parenExpressionFollowedByExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.simpleNotExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.structWithOneArrayField -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.twoVariablePathExpressionWithoutArrayAccess -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.emptyFunction -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.emptyFunctionThreeParams -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.simplePathAssignment -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.emptyFunctionArrayReturn -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.fullIfStatement -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.singleIfStatement -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.emptyFunctionOneBaseTypeArrayParam -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.structWithTwoBaseTypeFields -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.idVariableDeclaration -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.emptyInput -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.singleIfStatementWithNonEmptyElse -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.emptyWhileStatement -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.whileWithBodyStatement -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.baseTypeArrayVariableDefinitionWithTypeAnnotation -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.mixOfEmptyStructsAndFunctions -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.emptyFunctionOneIdParam -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.simpleBoolExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.singleIfStatementWithOneElseIf -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.mixedVariablePathExpression -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.simpleVariableExpressionWithoutArrayAccess -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.idArrayVariableDefinitionWithTypeAnnotation -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.arrayOfBaseTypeVariableDeclaration -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.variableDefinitionWithoutTypeAnnotation -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.structWithOneIdField -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.simpleVariableExpressionWithArrayAccess -- Time elapsed: 0.001 s
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[INFO] cpsc326.ASTParserTests.newArrayExpressionWithBaseType -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.oneArgCallExpression -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.singleIfStatementWithTwoElseIfs -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.structWithOneBaseTypeField -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.twoBinaryOperatorsNoParens -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.baseTypeVariableDefinitionWithTypeAnnotation -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.multiplePathAssignment -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.emptyFunctionOneIdArrayParam -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.simpleArrayPathAssignment -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.emptyFunctionTwoParams -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.simpleLiteralValues -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.simpleParenExpression -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.singleIfStatementWithBody -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.emptyStruct -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.structWithThreeFields -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.doubleNotExpression -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.singleIfStatementWithEmptyElse -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.newStructExpressionWithTwoArgs -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.simpleAssignment -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.emptyCallExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserTests.newStructExpressionWithOneArg -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.parenExpressionBeforeExpression -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.twoArgCallExpression -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.idVariableDefinitionWithTypeAnnotation -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserTests.baseTypeVariableDeclarations -- Time elapsed: 0 s
[INFO] Running cpsc326.HW3ASTTests
[INFO] Tests run: 57, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.049 s -- in cpsc326.HW3ASTTests
[INFO] cpsc326.HW3ASTTests.emptyFunctionOneBaseTypeParam -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.simpleNewStructExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.twoEmptyFunctions -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.parenExpressionFollowedByExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.simpleNotExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.structWithOneArrayField -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.twoVariablePathExpressionWithoutArrayAccess -- Time elapsed: 0.002 s
[INFO] cpsc326.HW3ASTTests.emptyFunction -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.emptyFunctionThreeParams -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.simplePathAssignment -- Time elapsed: 0.002 s
[INFO] cpsc326.HW3ASTTests.emptyFunctionArrayReturn -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.fullIfStatement -- Time elapsed: 0.002 s
[INFO] cpsc326.HW3ASTTests.singleIfStatement -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.emptyFunctionOneBaseTypeArrayParam -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.structWithTwoBaseTypeFields -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.idVariableDeclaration -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.emptyInput -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.singleIfStatementWithNonEmptyElse -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.emptyWhileStatement -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.whileWithBodyStatement -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.baseTypeArrayVariableDefinitionWithTypeAnnotation -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.mixOfEmptyStructsAndFunctions -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.emptyFunctionOneIdParam -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.simpleBoolExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.singleIfStatementWithOneElseIf -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.mixedVariablePathExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.simpleVariableExpressionWithoutArrayAccess -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.idArrayVariableDefinitionWithTypeAnnotation -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.arrayOfBaseTypeVariableDeclaration -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.variableDefinitionWithoutTypeAnnotation -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.structWithOneIdField -- Time elapsed: 0.002 s
[INFO] cpsc326.HW3ASTTests.simpleVariableExpressionWithArrayAccess -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.newArrayExpressionWithBaseType -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.oneArgCallExpression -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.singleIfStatementWithTwoElseIfs -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.structWithOneBaseTypeField -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.twoBinaryOperatorsNoParens -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.baseTypeVariableDefinitionWithTypeAnnotation -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.multiplePathAssignment -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.emptyFunctionOneIdArrayParam -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.simpleArrayPathAssignment -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.emptyFunctionTwoParams -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.simpleLiteralValues -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.simpleParenExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.singleIfStatementWithBody -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.emptyStruct -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.structWithThreeFields -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.doubleNotExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.singleIfStatementWithEmptyElse -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.newStructExpressionWithTwoArgs -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.simpleAssignment -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.emptyCallExpression -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.newStructExpressionWithOneArg -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3ASTTests.parenExpressionBeforeExpression -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.twoArgCallExpression -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.idVariableDefinitionWithTypeAnnotation -- Time elapsed: 0 s
[INFO] cpsc326.HW3ASTTests.baseTypeVariableDeclarations -- Time elapsed: 0 s
[INFO] Running cpsc326.HW3SyntaxTests
[INFO] Tests run: 84, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.057 s -- in cpsc326.HW3SyntaxTests
[INFO] cpsc326.HW3SyntaxTests.moreInvolvedWhileStatement -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3SyntaxTests.basicPathExpressions -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3SyntaxTests.functionWithMultipleBaseTypeParams -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3SyntaxTests.expressionWithBadArrayIDRvalue -- Time elapsed: 0.012 s
[INFO] cpsc326.HW3SyntaxTests.nestedStatements -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3SyntaxTests.missingParameterInField -- Time elapsed: 0 s
[INFO] cpsc326.HW3SyntaxTests.simpleForStatement -- Time elapsed: 0 s
[INFO] cpsc326.HW3SyntaxTests.missingIfBody -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3SyntaxTests.variableDefinitionsWithOutTypeAnnotations -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3SyntaxTests.returnWithoutExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.HW3SyntaxTests.variableDeclWithoutIdentifier -- Time elapsed: 0.002 s
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[INFO]  cpsc326.HW3SyntaxTests.missingFunctionCloseBrace -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.forWithoutLoopTo -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingFunctionCloseParen -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.variableDeclWithMissingColon -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingStructCloseBrace -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.emptyFunction -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingStructID -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.basicNewExpressions -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.expressionWithBadNonArrayIDRvalue -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.assignWithBadNonArrayLvalue -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.assignWithBadArrayLvalue -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.structWithBaseTypeFields -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.emptyInput -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.mixOfStructsAndFunctions -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.functionOneBaseTypeParam -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.expressionWithTooFewClosingParens -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.mixOfStatements -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.multipleIfElses -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.elseWithNoBody -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.elseWithNoIf -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.nonTerminatingWhileBody -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.functionBaseValueReturnType -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.forWithoutLoopFromExpression -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.basicLogicalExpressions -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.forWithoutLoopInformation -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.missingWhileBody -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.variableDeclarations -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingFunctionOpenBrace -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingFunctionOpenParen -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingFunctionParamID -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.assignWithMissingExpression -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.assignWithMissingAssignOp -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.simpleWhileStatement -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.basicFunctionCalls -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingColonInField -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.forWithoutLoopBody -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.forWithoutLoopFrom -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.basicArithmeticExpressions -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.missingFunctionParamType -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingWhileExpression -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.multipleIfs -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.functionNonBaseValueReturnType -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.returnVariousLiterals -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.expressionWithTooManyOperands -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.variableDefinitionsWithTypeAnnotations -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.variableDefinitionMissingExpression -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.elseOutOfOrder -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingFunctionParamColon -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingFunctionParamComma -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.missingIfExpression -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.forWithNonTerminatedLoopBody -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.expressionWithMissingOperand -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.forStatementWithNonLiteralRange -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.simpleIfWithElse -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.missingStructOpenBrace -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.bracesWithoutStructOrFunction -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.functionWithMulitpleNonBaseTypeParams -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.basicRelationalExpressions -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.simpleIfStatement -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.emptyStruct -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.statementOutsideFunctionOrStruct -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.nonTerminatingIfBody -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.variableDeclWithoutVar -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingDataTypeInField -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.variableDeclWithoutType -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.forWithoutLoopToExpression -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.missingFunctionReturnType -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.missingCommaBetweenFields -- Time elapsed: 0.001 s
[INFO]  cpsc326.HW3SyntaxTests.elseWithNoTerminatingBody -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.structWithNonBaseTypeFields -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.elseIfWithNoIf -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.functionOneNonBaseTypeParam -- Time elapsed: 0 s
[INFO]  cpsc326.HW3SyntaxTests.expressionWithTooFewOpeningParens -- Time elapsed: 0 s
[INFO]  Running cpsc326.ASTParserSyntaxTests
[INFO]  Tests run: 84, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.037 s -- in cpsc326.ASTParserSyntaxTests
[INFO]  cpsc326.ASTParserSyntaxTests.moreInvolvedWhileStatement -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.basicPathExpressions -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.functionWithMultipleBaseTypeParams -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.expressionWithBadArrayIDRvalue -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.nestedStatements -- Time elapsed: 0.001 s
[INFO]  cpsc326.ASTParserSyntaxTests.missingParameterInField -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.simpleForStatement -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.missingIfBody -- Time elapsed: 0.001 s
[INFO]  cpsc326.ASTParserSyntaxTests.variableDefinitionsWithOutTypeAnnotations -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.returnWithoutExpression -- Time elapsed: 0.001 s
[INFO]  cpsc326.ASTParserSyntaxTests.variableDeclWithoutIdentifier -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.missingFunctionCloseBrace -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.forWithoutLoopTo -- Time elapsed: 0.001 s
[INFO]  cpsc326.ASTParserSyntaxTests.missingFunctionCloseParen -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.variableDeclWithMissingColon -- Time elapsed: 0.001 s
[INFO]  cpsc326.ASTParserSyntaxTests.missingStructCloseBrace -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.emptyFunction -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.missingStructID -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.basicNewExpressions -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.expressionWithBadNonArrayIDRvalue -- Time elapsed: 0.001 s
[INFO]  cpsc326.ASTParserSyntaxTests.assignWithBadNonArrayLvalue -- Time elapsed: 0 s
[INFO]  cpsc326.ASTParserSyntaxTests.assignWithBadArrayLvalue -- Time elapsed: 0 s
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[INFO] cpsc326.ASTParserSyntaxTests.structWithBaseTypeFields -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.emptyInput -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.mixOfStructsAndFunctions -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.functionOneBaseTypeParam -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.expressionWithTooFewClosingParens -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.mixOfStatements -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.multipleIfElses -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.elseWithNoBody -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.elseWithNoIf -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.nonTerminatingWhileBody -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.functionBaseValueReturnType -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.forWithoutLoopFromExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.basicLogicalExpressions -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.forWithoutLoopInformation -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.missingWhileBody -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.variableDeclarations -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.missingFunctionOpenBrace -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.missingFunctionOpenParen -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.missingFunctionParamID -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.assignWithMissingExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.assignWithMissingAssignOp -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.simpleWhileStatement -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.basicFunctionCalls -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.missingColonInField -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.forWithoutLoopBody -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.forWithoutLoopFrom -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.basicArithmeticExpressions -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.missingFunctionParamType -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.missingWhileExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.multipleIfs -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.functionNonBaseValueReturnType -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.returnVariousLiterals -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.expressionWithTooManyOperands -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.variableDefinitionsWithTypeAnnotations -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.variableDefinitionMissingExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.elseOutOfOrder -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.missingFunctionParamColon -- Time elapsed: 0.002 s
[INFO] cpsc326.ASTParserSyntaxTests.missingFunctionParamComma -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.missingIfExpression -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.forWithNonTerminatedLoopBody -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.expressionWithMissingOperand -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.forStatementWithNonLiteralRange -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.simpleIfWithElse -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.missingStructOpenBrace -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.bracesWithoutStructOrFunction -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.functionWithMulitpleNonBaseTypeParams -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.basicRelationalExpressions -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.simpleIfStatement -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.emptyStruct -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.statementOutsideFunctionOrStruct -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.nonTerminatingIfBody -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.variableDeclWithoutVar -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.missingDataTypeInField -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.variableDeclWithoutType -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.forWithoutLoopToExpression -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.missingFunctionReturnType -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.missingCommaBetweenFields -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.elseWithNoTerminatingBody -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.structWithNonBaseTypeFields -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.elseIfWithNoIf -- Time elapsed: 0 s
[INFO] cpsc326.ASTParserSyntaxTests.functionOneNonBaseTypeParam -- Time elapsed: 0.001 s
[INFO] cpsc326.ASTParserSyntaxTests.expressionWithTooFewOpeningParens -- Time elapsed: 0 s
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 282, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  1.846 s
[INFO] Finished at: 2025-03-17T21:36:51-07:00
[INFO] ------------------------------------------------------------------------
```

Program output:

```
./mypl -m PRINT ../hw3_1.mypl > hw3_1_actual.out 2>&1
diff ../hw3_1.out hw3_1_actual.out

./mypl -m PRINT ../hw3_2.mypl > hw3_2_actual.out 2>&1
diff ../hw3_2.out hw3_2_actual.out

./mypl -m PRINT ../hw3_3.mypl > hw3_3_actual.out 2>&1
diff ../hw3_3.out hw3_3_actual.out

./mypl -m PRINT ../hw3_4.mypl > hw3_4_actual.out 2>&1
diff ../hw3_4.out hw3_4_actual.out
```