#### Sean Kohler Sean.Kohler1@marist.edu

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Objective: This Lab we have a few tasks to accomplish. We must reach chapters 4.1-4.4, 5.1-5.3, and 7.1 in the Crafting a Compiler book as well as reading chapters 2.7, 2.8.2, 4.2, 4.4.1, and 5.3.1 in the Dragon book. We then must complete exercises 4.7 and 5.2c from the Crafting a Compilers book. We must also complete exercise 4.2.1 a, b, and c from the Dragon book.

## 1 Crafting a Compiler

This section contains the assignments from the Crafting a Compiler book

#### 1.1 4.7

4.7a 1.(E)\$						
2. (T) Plus (E)						
4 (1) times (F) thus (E)\$						
5 (F) times (F) plus (E) \$						
6. (E) times (F) plus (E) \$						
2. (T) Plus (E) times (F) Plus (E)\$						
5. (F) Plus (E) times (F) Plus (E)						
7. Trum Plus (E) times (F) plus (E) \$						
3. num plus (+) times (F) plus (E)}						
5. num plus (F) times (F) Aus (67\$						
7. num plus num times (F) plus (67\$						
7. num plus num times num plus (67 \$						
3. num nus num times num aus (T)\$						
5 nem plus nem times num plus (\$7.5						
7. num plus num times num Aus num \$						

4.76 num times num Plus num times num				
Frank Spring with Jan 2012 Mark				
1, (E)\$				
3. 473				
4. <17 (24 mes (F)\$				
5. (F) times (F) §				
6. (E) times (F7)				
2. (E) FINUS (E) times (F) \$				
3. (T) AUS (T) Limes (F7 )				
5. (F) ALS (F) times (F) \$				
6. (E) ALUS (F) times (F) \$				
3. <7) PLUS (F) + imes (F) \$				
4. GTHIMES (FT HUS (FT + IMES (FT \$				
5. (F) time LF) AND LF) times (F) \$				
7. (F) times (F) AUS (B) (times num 5)				
7. (F) tincs (F) his num times num \$				
7. SEXTIMES AM NUS AMM times new \$				
7 Fam times ram plus num times num \$				

 $4.7\mathrm{c}$  In this grammar, the productions terminate when reaching "num". This grammar also nests expressions that are separated by "plus" or "times".

### 1.2 5.2c

5.20						
1. Start -> Value \$						
2. Value -> num						
3> Paren Exir (Paren						
4. Expr -> plus value Value						
5> prod Values						
6. Values -> Value Values						
7> 1						
Jacob Je-Colonia de la colonia						
Parse Start () {		Parse Exer() {		Pack Valles Of		
parsevaire()		if (plus) {		-if(vaive){		
match ("\$")		mathe (plus)		pase value()		
3		passivanico		Parsevalues ()		
ParseValue(){	1	Parsevalue()		3else [		
if (num) }		Berei		11005,700		
match (num)	1350	matu (Aral)		3		
Berki		Postanes()		3		
Matin (Haren)		3	Andrew Brand			
posetxer()		3	But had been be			
match (spaces)						
3						
3 many						

# 2 Dragon

This section contains the assignments from the Dragon book

### $2.1 \quad 4.2.1$

