THE UNIVERSITY OF WESTERN ONTARIO
Computer Science 3357a – Fall 2014
Assignment 1 Marking Scheme

Student Username:
Marked By:
Submitted On:

Client (30%)

Criterion	Mark	Out Of	Comments
Compilation and Execution			
If code does not compile or run properly, read the code and mark as much as you can.		Compiles/runs successfully: **0** Runs but produces little to no correct output, or crashes frequently: **-6** Compiles but crashes immediately: **-7** Does not compile: **-9**	
Command-Line Arguments			
Uses `getopt_long` to parse arguments		1	
Accepts server hostname		1	
Accepts server IP address		1	
Accepts port number		1	
Accepts expression		1	
Accepts both short and long options		1	
Prints error upon missing options		1	
Prints error if option missing argument (e.g. `-p` with no argument)		1	

Criterion	Mark	Out Of	Comments
Functionality			
Sends correctly-formed CTP request		**2**	
Prints output in the requested form		**2**	
Output clean and free of debug information		**2**	
Frees dynamically allocated memory		**2**	
Client Total		**16**	

Server (50%)

Criterion	Mark	Out Of	Comments
Compilation and Execution			
If code does not compile or run properly, read the code and mark as much as you can.		Compiles/runs successfully: **0** Runs but produces little to no correct output, or crashes frequently: **-19** Compiles but crashes immediately: **-22** Does not compile: **-26**	
Command-Line Arguments			
Uses `getopt_long` to parse arguments		**1**	
Accepts port number		**1**	
Accepts both short and long options		**1**	
Prints error upon missing options		**1**	
Prints error if option missing argument (e.g. `-p` with no argument)		**1**	
General			
Uses `syslog` for program output		**2**	
Uses TCP sockets		**3**	
Sends correctly-formed CTP response		**3**	
Frees dynamically allocated memory		**2**	

Criterion	Mark	Out Of	Comments
Server Output			
Output clean and free of debug information		2	
Prints client IP on incoming request		1	
Prints expression received on incoming request		1	
Prints status code to be sent in next response		1	
Prints result to be sent in next response		1	
Error Handling			
Correctly handles malformed request messages		2	
Correctly handles expressions that exceed the maximum length		2	
Correctly handles mismatched parentheses		2	
Correctly handles invalid characters		2	
Correctly handles floating point numbers		2	
Expression Parsing			
Correctly evaluates -5		2	
Correctly evaluates 2+2		2	
Correctly evaluates 2 + 2		2	
Correctly evaluates 5/2		2	
Correctly evaluates 2+20		2	
Correctly evaluates 10+20+30+40		2	
Correctly evaluates 2*5-1		2	
Correctly evaluates 2*(5-1)		2	
Correctly evaluates ((5+2)/(4+3))		3	
Server Total		50	

Style and Comments (20%)

Criterion	Mark	Out Of	Comments
Comments			
Code contains inline comments allowing reader to follow algorithm		3	
Variable declarations commented		3	
Header comment in each file with the appropriate information		3	
Comments are descriptive and do not simply repeat what the code is saying		3	
Attention paid to spelling and grammar		3	
Style			
Uses descriptive variable names		3	
Uses descriptive function names		3	
Uses constants instead of magic numbers		3	
Functions kept to a reasonable length		3	
Code is modular and divided into multiple files, where appropriate		3	
Lines kept to a reasonable length (80 - 100 chars)		3	
Spaces used instead of tabs		3	
Indent width does not exceed 4 characters		3	
Braces placed on new line		3	
Code is clean and well-formatted		3	
Appropriate use of whitespace		3	
Style and Comments Total		48	

Submission Errors (up to 5% off)

Criterion	Deduction	Out Of	Comments
Submission not tagged `asn1`		**-5**	
Submission directory not named `asn1`		**-2**	
Submission contains disallowed files		**-1 per file (max. -3)**	
Submission missing required files		**-1 per file (max. -3)**	
Makefile does not produce executables `calc-server` and `calc-client`		**-2**	
Total Deductions		**Max. -5**	

Evaluation Summary

Section	Mark	Out Of	Weight	Weighted Mark (round up to nearest integer)
Client		**16**	**30%**	
Server		**50**	**50%**	
Style and Comments		**48**	**20%**	
			Subtotal	
			- Submission Errors (max. -5)	
- Day(s) Late 2^{n+1} marks, n = days late; weekends count as 1 day; max. -32; do not mark past 4 days late				
			Total (out of 100)	

Comments