

## CS111 Homework 3 (Due Oct 18, 2018)

Name your program **hw3.cpp**. Program must be able to compile or you will get at most 1 out of 2 points for the assignment.

Write **one single** complete C++ program to do all sections below:

### Part A:

- I. Print "Please enter a positive 3-digit number: " and read in the number. If the number is not a **positive** 3-digit number, ask again until the number is valid.
- II. Prints only the 3-digit numbers starting from the user's input with 15 numbers (separated by spaces) on each line in a descending order.

(Hint: Take a look at the answer for problem 54 in prac1.pdf and also the solution for lab #10 exercises.)

### Part B:

- I. Print "Please enter an odd number between 9 to 19 (inclusive): " and read in the number. If the number is not within the range, ask again until the number is valid.
- II. The program then prints out three big "asterisks" using the input value as the row height and column width for 1 big asterisk. There should be two spaces between the big asterisks. See the sample runs below for details.

(Hint: Take a look at the answers for Q.8 and Q.260 in prac1.pdf.)

Sample run with user's input shown in red:

Part A:

Please enter a positive 3-digit number: 99  
Please enter a positive 3-digit number: 1000  
Please enter a positive 3-digit number: -99  
Please enter a positive 3-digit number: -999  
Please enter a positive 3-digit number: 555

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270 269 268 267 266 265 264 263 262 261 260 259 258 257 256  
255 254 253 252 251 250 249 248 247 246 245 244 243 242 241  
240 239 238 237 236 235 234 233 232 231 230 229 228 227 226  
225 224 223 222 221 220 219 218 217 216 215 214 213 212 211  
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195 194 193 192 191 190 189 188 187 186 185 184 183 182 181  
180 179 178 177 176 175 174 173 172 171 170 169 168 167 166  
165 164 163 162 161 160 159 158 157 156 155 154 153 152 151  
150 149 148 147 146 145 144 143 142 141 140 139 138 137 136  
135 134 133 132 131 130 129 128 127 126 125 124 123 122 121  
120 119 118 117 116 115 114 113 112 111 110 109 108 107 106  
105 104 103 102 101 100

Part B:

Please enter an odd number between 9 to 19 (inclusive): 10  
Please enter an odd number between 9 to 19 (inclusive): 8  
Please enter an odd number between 9 to 19 (inclusive): 7  
Please enter an odd number between 9 to 19 (inclusive): 20  
Please enter an odd number between 9 to 19 (inclusive): -9  
Please enter an odd number between 9 to 19 (inclusive): 9

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