

# Project 1 Write a 2 player game

a) Asks one user to enter secret # to be guessed

continue statement  
82 while

cin  
range: limit for 1-100 w/ no decimals int

use if  $x > 0 \ \&\& \ x \leq 100$   
then store input  
player secretNum

else: invalid #  
please choose a #  
between 1 and 100

set as int numRange

b) Use loop to repeatedly do:

i) Ask user to guess secret #:

cout << "Guess your opponents number from 1-100"

int numGuesses = 3, use countdown w/in loop

cout << "You have" << numGuesses "remaining" << "make a guess!"

int guessedNum

cin >> guessedNum

ii) IF  $guessedNum > secretNum$

cout << "Your guess was too high"

IF  $guessedNum < secretNum$

cout << "Your guess was too low"

IF  $guessedNum = secretNum$

cout << "You guessed the number!"

iii) change range to reflect newest guess

Needs to be in  
a loop! This  
will be used for  
each guess  
(3x for 3 guesses)

change numRange:  $numRange = x > 0 \ \&\& \ x < guessedNum$

change numRange:  $numRange = x > guessedNum \ \&\& \ x \leq 100$

d) Tells user they got the # or ran out of guesses

cout << "You did not You've run out of guesses!"

<< "The correct number was" << secretNum

int closestGuess = ?  $secretNum - guessedNum$  (1, 2, 3)

<< "Your closest guess

was" << closestGuess << "away  
from the correct number"

Need to look up distance between #'s?  
could just remove neg from eq  
\* - also need to look up

guess 12,  
num 20,  
15 - 8

Ex guess  
40, num 30  
15 - 10

e) Let user play again w/out terminating program if they want to

cout << "Play again?"

cin >> playAgain

if playAgain = 1

\* reset loop somehow

else if playAgain = 0

quit program

int playAgain