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| Homework : \_\_\_3.A\_\_\_\_\_\_  //Christopher Badolato CH432391  //Assignment 3A  //9/30/2018  //ENC3211  //this program calculates the function x^2 + 5x + 6;  #include <stdio.h>  #include <math.h>  #include <stdlib.h>  //Function prototype for our calculation function.  float calculation(float);  int main() {  //Variable declaration, also grabbing of our value from the user.  //we will continue to loop unless our entered value from the user i  float functionSolved, enteredValue;  printf("This program evaluates x^2 + 5x + 6\n\n");  printf("\*\*\* Note: Invalid values will terminate the program \*\*\*\n\n");  while(1){  printf("Enter a decimal between -100.0 and 100.0 :");  scanf("%f", &enteredValue);  //if our value from the user is outside of our range,  //we need to break the loop and exit the program.  //otherwise, send the users value to the calculation function.  if(enteredValue > -100.0 && enteredValue < 100.0){  functionSolved = calculation(enteredValue);  printf("f(%.4f) = %.4f \n\n", enteredValue, functionSolved);  }  else{  printf("%.4f is invalid. Good bye", enteredValue, functionSolved);  break;  }  }  return 0;  }  //calculates our function using the power function pow(x , 2), (x^2)  //this will square our x, we will then calculate the rest of the function  //then send the value back to main.  float calculation(float x){  float functionSolved;  functionSolved = pow(x , 2) + (5 \* x) + 6;  return functionSolved;  } |
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| 3.A Program output  This program evaluates x^2 + 5x + 6  \*\*\* Note: Invalid values will terminate the program \*\*\*  Enter a decimal between -100.0 and 100.0 :5  f(5.0000) = 56.0000  Enter a decimal between -100.0 and 100.0 :4  f(4.0000) = 42.0000  Enter a decimal between -100.0 and 100.0 :3  f(3.0000) = 30.0000  Enter a decimal between -100.0 and 100.0 :2.0  f(2.0000) = 20.0000  Enter a decimal between -100.0 and 100.0 :1.5  f(1.5000) = 15.7500  Enter a decimal between -100.0 and 100.0 :1.25  f(1.2500) = 13.8125  Enter a decimal between -100.0 and 100.0 :0  f(0.0000) = 6.0000  Enter a decimal between -100.0 and 100.0 :-100  -100.0000 is invalid. Good bye  Process returned 0 (0x0) execution time : 40.607 s  Press any key to continue. |
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| Homework : \_\_3.B\_\_\_\_\_\_\_  3.B Source Code  //Christopher Badolato CH432391  //Assignment 3B  //9/30/2018  //ENC3211  //This program will the user will play a guessing game of a random number  //between 1 and 1000. They will be asked if they would like to play again or not.  #include <stdio.h>  #include <math.h>  #include <stdlib.h>  int main() {  //Initialize our random function based off of the time  //along with other variables including the character for  //our yes/no question.  srand(time(0));  int randomValue, difference, userGuess;  char tryAgain = 'y';  while(tryAgain == 'y' || tryAgain == 'Y'){  //Create random value between 1 and 1000  //Prompt for first quess.  randomValue = rand()%1000+1;  printf("I have a number between 1 and 1000. \n");  printf("Can you guess my number? \n");  printf("Please type your first guess: ");  scanf("%d", &userGuess);  //After have our first guess, if it is INCORRECT then we will  //continue to ask to try again.  //After determining if the guess is too low or high  //we will then prompt the use for their nmext guess  while(userGuess != randomValue){  if(userGuess < randomValue){  printf("Too Low. Try again.\n");  }  else{  printf("Too High. Try again.\n");  }  scanf("%d", &userGuess);  }  //Finally if the guess is correct we will say so  //then ask to user if they would like to play again.  printf("Excellent! You guessed the number!\n");  printf("would you like to try again (y or n)? ");  scanf(" %c", &tryAgain);  printf("\n");  }  return 0;  } |
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| 3.B Program output ( I put the same output in the photo above)  I have a number between 1 and 1000.  Can you guess my number?  Please type your first guess: 500  Too Low. Try again.  750  Too High. Try again.  600  Too Low. Try again.  650  Too Low. Try again.  700  Too Low. Try again.  725  Too Low. Try again.  735  Too High. Try again.  730  Too High. Try again.  728  Too Low. Try again.  729  Excellent! You guessed the number!  would you like to try again (y or n)? n  Process returned 0 (0x0) execution time : 44.801 s  Press any key to continue. |