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Number 3)

The sum and avg are called using the wrong variables. Instead of ‘sum’ and ‘avg’ it should be ‘\*sum’ and ‘\*avg’.

Number 4)

Graphical user interface, text, application

Description automatically generated

#include<stdio.h>

void swap(int \*p, int \*q);

int main(void){

//declare variables then print out once

int i = 10, j = 100;

printf("i: %d, j: %d\n", i, j);

//run function to swap and then print out new values

swap(&i, &j);

printf("i: %d, j: %d\n", i, j);

return 0;

}

void swap (int \*p, int \*q){

//define temp to be \*p, then swap \*p to be \*q,

//then swap \*q to be temp

int temp = \*p;

\*p = \*q;

\*q = temp;

}

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Programming Project 1

Text

Description automatically generated

#include<stdio.h>

void pay\_amount(int dollars, int \*twenties, int \*tens,

int \*fives, int \*ones);

int main(void){

//Define variables

int dollars, twenties, tens, fives, ones;

//this takes an input and then runs the function

printf("Enter a dollar amount: ");

scanf("%d", &dollars);

pay\_amount(dollars, &twenties, &tens, &fives, &ones);

//prints out the results

printf("$20: %d \n", twenties);

printf("$10: %d \n", tens);

printf("$5: %d \n", fives);

printf("$1: %d \n", ones);

}

//function to define each variable as the amount of bills

void pay\_amount(int dollars, int \*twenties, int \*tens,

int \*fives, int \*ones){

//does the math and set the variables

\*twenties = dollars / 20;

dollars = dollars - \*twenties \* 20;

\*tens = dollars / 10;

dollars = dollars - \*tens \* 10;

\*fives = dollars / 5;

dollars = dollars - \*fives \* 5;

\*ones = dollars / 1;

}

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Exercise 1)

1. 14
2. 34
3. 4
4. True
5. False

Exercise 5)

b, c, and d are all allowed. They are either assigning or using a pointer. A is does not work at all so it is a nonzero value.

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Exercise 8)

void store\_zeros(int a[], int n){

int \*p;

for (p = a; p < a + n; p++){

\*p = 0;

}

}

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Programming Project 1

Text

Description automatically generated

#include<stdio.h>

int main(void){

//define variables

char \*e;

char input, msg[100];

//takes the input of the message and stores it in

//the msg variable

printf("Enter a message: ");

for(e = &msg[0]; e < &msg[0] + 100; e++){

if ((input = getchar()) == '\n') break;

\*e = input;

}

//uses a for loop to print the the array backwards.

printf("Reversal: ");

for(e = e - 1; e >= &msg[0]; e--){

putchar(\*e);

}

printf("\n");

}