Task 1:

#include <iostream>

#include <iomanip>

using namespace std;

const int MAX\_ROWS = 3;

const int MAX\_COLUMNS = 2;

int totalEven(int A[][MAX\_COLUMNS], int len, int width);

int main() {

int A[MAX\_ROWS][MAX\_COLUMNS] = { { 3, 2 },{ 4, 5 },{ 2, 2 } };

int length = 0, width = 0, total;

total = totalEven(A, length, width);

cout << "The total number of even is: " << total << endl;

return 0;

}

int totalEven(int A[][MAX\_COLUMNS], int length, int width) {

int totalEven = 0;

for (length = 0; length < MAX\_ROWS; length++) {

for (int width = 0; width < MAX\_COLUMNS; width++)

if (A[length][width] % 2 == 0) {

totalEven = totalEven + 1;

}

}

return totalEven;

}

Task 2:

#include <iostream>

#include <iomanip>

using namespace std;

const int NUM\_STORES = 2;

const int NUM\_MONTHS = 12;

const int NUM\_DEPTS = 2;

void totalSale(float Sale[][NUM\_MONTHS][NUM\_DEPTS], int Month);

int main() {

int month;

float Sale[NUM\_STORES][NUM\_MONTHS][NUM\_DEPTS] =

{ 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2,

2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2,

3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 4.0, 4.1, 4.2,

2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0, 3.1, 3.2

};

cin >> month;

totalSale(Sale, month);

return 0;

}

void totalSale(float Sale[][NUM\_MONTHS][NUM\_DEPTS], int Month) {

float total = 0.0;

for (int i = 0; i < NUM\_STORES; i++) {

for (int k = 0; k < NUM\_DEPTS; k++) {

cout << "Store: " << i << " Department " << k << ": " << Sale[i][Month][k]

<< endl;

total += Sale[i][Month][k];

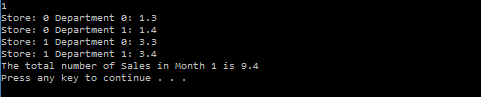
}

}

cout << "The total number of Sales in Month " << Month

<< " is " << total << endl;

}



Task 3:

#include <iostream>

#include <iomanip>

using namespace std;

int combination(int Y, int X) {

if (X == 1) {

return Y;

}

else if (X == Y) {

return X;

}

else if (Y > X && X > 1) {

return combination(Y - 1, X - 1) + combination(Y - 1, X);

}

}

Task 4:

#include <iostream>

#include <iomanip>

using namespace std;

int combination(int Y, int X);

int main() {

int total;

total = combination(8, 4);

cout << "The number of combinations of 4 items made out of a total of 8 items is: "

<< total << endl;

return 0;

}

int combination(int Y, int X) {

if (X == 1) {

return Y;

}

else if (X == Y) {

return 1;

}

else if (Y > X && X > 1) {

return combination(Y - 1, X - 1) + combination(Y - 1, X);

}

}

Task 5:

#include <iostream>

#include <iomanip>

using namespace std;

int combination(int Y, int X, int level);

int main() {

int level = 1;

combination(8, 4, level);

return 0;

}

int combination(int Y, int X, int level) {

if (X == 1) {

return Y;

}

else if (X == Y) {

return X;

}

else if (Y > X && X > 1) {

cout << "Recursive level: " << level << endl;

cout << "Y = " << Y << " X = " << X << endl;

return (combination(Y - 1, X - 1, level + 1) + combination(Y - 1, X, level + 1));

}

}

