

Forum:[Hack Forums](#)

Thread: [Need to create a simple program for homework](#)

Voxi - November 1, 2018, 1:34 pm

Here is what I have to do:

You know that the combination to a safe is a four-digit integer (between 1000 and 9999) that:

- a) is a perfect square, and
- b) is not divisible by 2, 3 or 5.

Could anyone help me out on where i'd start? I'm really bad at C++ and think i'm gonna fail my class lol

Mouse? - November 1, 2018, 3:55 pm

If that's your assignment, I see why you're failing. There aren't even any instructions. It's just telling you what an incorrect definition of a number combination is.

Souffrance - November 1, 2018, 10:28 pm

Assuming you have to code it, the way I would start is by having a loop that goes from:

32 till 99.

In each of these iterations of the loop, get the squared number (i.e. number times itself, then check if it's divisible by 2, 3 or 5.) If it isn't divisible by any of them. Print it out.

Of course that's just assuming this is what the assignment actually wants you to do.

You'll need to use a for loop and an if statement to accomplish this.

int main() - November 2, 2018, 5:32 am

(Nov 1, 2018 03:55 PM)Mouse? Wrote: [CITE](#) If that's your assignment, I see why you're failing. There aren't even any instructions. It's just telling you what an incorrect definition of a number combination is.

LOOOOOOOOOL poor guy

FoxBlood - November 2, 2018, 6:48 am

Nobody will help you here, it's about your programming education, if you don't like programming that means you are in a wrong school

Abruptum - November 2, 2018, 8:37 am

Hey,

The Solution is quite easy to understand.

```
Code #include <math.h>
#include <iostream>
```

```
using namespace std;
```

```

bool isDivisible(int x, int n);
bool isPerfectSquare(int n);
int main(){
    int a=1000;
    while(a<10000){
        if(!isDivisible(a,2) && !isDivisible(a,3) && !isDivisible(a,5) && isPerfectSquare(a)){
            cout<<a<<"\n";
        }
        a++;
    }
    return 0;
}
bool isPerfectSquare(int n){
    int squareRootN=(int)(sqrt((double)n)+0.5);
    return squareRootN*squareRootN == n;
}
bool isDivisible(int x, int n){
    return ((double)x/(double)n) == (double)(x/n);
}

```

Do it now yourself, use stackoverflow and other sites to gain informations how other people have solved this problem.

(There is a better version and you should be able to create it now on your own)

Souffrance - November 2, 2018, 12:21 pm

(Nov 2, 2018 08:37 AM)Abruptum Wrote: [\[CITE\]](#) Hey,
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This is inefficient, I'm not sure why you're checking if each number is a perfect square at all. Just generate only perfect squares instead.

icko1996 - November 2, 2018, 1:20 pm

Don't forget about the modulus operator.

You can check if a number is divisible by another number the following way:

$(x \% y) == 0$, where x is the dividend, y the divisor.

Good luck with your assignment!

Abruptum - November 2, 2018, 5:20 pm

(Nov 2, 2018 12:21 PM)Souffrance Wrote: [\[CITE\]](#) This is inefficient, I'm not sure why you're checking if each number is a perfect square at all. Just generate only perfect squares instead.

OMG ;D it was just an bad example so he could improve it.

Pleas read the whole post and don't bitch around.

incognito04 - November 14, 2018, 4:21 pm

A short example program ?.

PHP Code

```
<?php
#include <cmath>
#include <array>
#include <vector>
#include <iostream>
#include <numeric>
#include <algorithm>

int main()
{
    const auto is_div = [](const short x, const short y) -> bool {
        return x % y == 0;
    };

    const auto is_sqrt = [](const short n) -> bool {
        const auto sr = std::sqrt(n);
        return ((sr - std::floor(sr)) == 0);
    };

    std::array<short, 9000> data;

    std::iota(data.begin(), data.end(), 1000);

    std::vector<short> copyOfData;

    const auto itr = std::copy_if(data.begin(), data.end(), std::back_inserter(copyOfData), [&is_div, &is_sqrt](const short n) {
        return is_sqrt(n) && is_div(n, 2) && is_div(n, 3) && is_div(n, 5);
    });
}
```

```
for (const auto n : copyOfData)
    std::cout << n << '\n';

return 0;
}
```

kray - November 14, 2018, 11:40 pm

(Nov 1, 2018 03:55 PM)Mouse? Wrote: [\[CITE\]](#) If that's your assignment, I see why you're failing. There aren't even any instructions. It's just telling you what an incorrect definition of a number combination is.

after first reading the original post, I was confused. After reading your reply, I laughed so hard I'm now dead.