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# MPL

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Total Questions | Minimum Questions | Answered | Non-answered |
| CH5 | 38 | 5 | 5 | 33 |
| CH6 | 37 | 5 | 5 | 32 |

# Your MPL question selection

## MPL Q1 CH5

Number:20680

Question: [Given](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [int](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [variables](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) k and total that have [already](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) been [declared](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?), use a [while loop](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) to compute the [**sum**](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) of the **squares** of the first 50 counting numbers, and [store](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) this [value](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) in total. Thus your code should put 1\*1 + 2\*2 + 3\*3 +... + 49\*49 + 50\*50 into total. Use no [variables](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) other than k and total.

Answer: total=0;k=50;while (k>0){total+=k\*k;k--;}

Why: It was the first one to do

## MPL Q2 CH5

Number: 20678

Question: [Given](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) an [int](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [variable](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) k that has [already](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) been [declared](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?), use a [while loop](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) to **print** a single line consisting of **88** asterisks. Use no [variables](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) other than k.

Answer: k=1;  
while(k<=88){  
 System.out.print('\*');  
 k++;  
}  
System.out.println();

Why: I want more practice on while loops

## MPL Q3 CH5

Number: 21000

Question: [Given](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) an [**int**](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [variable](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) n that has [already](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) been [declared](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?), write some code that repeatedly reads a [value](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) into n [until](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) at last a number [between](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) 1 and 10 (inclusive) has been entered.

[ASSUME](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) the availability of a [variable](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?), stdin, that [references](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) a Scanner [object](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) associated with standard input.

Answer: n=-1;

while (n < 1 || n > 10)

n=stdin.nextInt();

Why: It was chanllging problem to do and think about

## MPL Q4 CH5

Number: 20689

Question: Write a [**statement**](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) that [**increases**](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) the [value](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) of the [int](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [variable](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) total by the [value](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) of the [int](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [variable](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) amount. That is, add the [value](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) of amount to total and [assign](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) the result to total.

Answer: total+=amount;

Why: It was easy one to do

## MPL Q5 CH5

Number: 21212

Question: [Given](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) a **Scanner** [reference variable](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [named](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) **input** that has been associated with an input source consisting of a sequence of [integers](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) and an [**int**](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [variable](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [named](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) **total**, write the code necessary to add all the [integers](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) in the input source and place their [sum](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) into **total**.

Answer: total = 0;

while(input.hasNextInt()){

total += input.nextInt();

Why: It was interesting problem to think about and do.

## MPL Q1 CH6

Number: 20655

Question: Write the **definition** of a [method](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) twice, which receives an [integer](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [parameter](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) and returns an [integer](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) that is **twice** the [value](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) of the [parameter](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?).

Answer: public static int twice(int a) {   
 int b = a\*2;  
 return b;  
}

Why: It was the first one to do

## MPL Q2 CH6

Number:20656

Question: Write the **definition** of a [method](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) add, which receives two [integer](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [parameters](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) and returns their [**sum**](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?).

Answer: public static int add(int a, int b) {

int sum = a+b;

return sum;

}

Why: It was easy to do

## MPL Q3 CH6

Number: 20658

Question: Write the **definition** of a [method](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) powerTo, which receives two [parameters](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?). The first is a [double](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) and the second is an [int](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?). The [method](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) returns a [double](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?).

If the second [parameter](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) is negative, the [method](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) returns zero. Otherwise it returns the [value](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) of the first [parameter](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) raised to the **power** of the second [parameter](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?).

Answer: public static double powerTo(double a, int b){  
 if(b<0){  
 return 0;  
 }  
 else  
 return Math.pow(a,b);  
}

Why: It was a interesting problem to think about to learn

## MPL Q4 CH6

Number: 20661

Question: Write the **definition** of a [method](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) min that has two [int](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [parameters](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) and returns the **smaller**.

Answer: int min(int num1, int num2){  
 if(num1 < num2) return num1;  
 else return num2;  
}

Why: It was chanllging problem to do and think about it to learn

## MPL Q5 CH6

Number: 20660

Question: [Given](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) the [integer](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [variables](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) x, y, and z, write a fragment of code that [assigns](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) the **smallest** of x, y, and z to another [integer](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [variable](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) min.

[Assume](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) that all the [variables](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) have [already](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) been [declared](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) and that x, y, and z have been [assigned](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?) [values](https://pearson.turingscraft.com/codelab/jsp/core_dhtml.jsp?).

Answer: if(x <y){

if(x<z){

min =x;

}else{

min = z;

}

}else{

if(y<z){

min= y;

}else{

min=z;

}

}

Why: It was very complicated problem to solve and it help learn more about it