**Codewars** | Kelsey’s Kata Solutions

My 87 Kata Solutions

[Freudian translator](https://www.codewars.com/kata/5713bc89c82eff33c60009f7)

### **Description:**

You probably know that number 42 is *"the answer to life, the universe and everything"* according to Douglas Adams' *"The Hitchhiker's Guide to the Galaxy"*. For Freud, the answer was quite different...

In the society he lived in, people - women in particular - had to repress their sexual needs and desires. This was simply how the society was at the time. Freud then wanted to study the illnesses created by this, and so he digged to the root of their desires. This led to some of the most important psychoanalytic theories to this day, Freud being the father of psychoanalysis.

Now, basically, when a person hears about Freud, s/he hears *"sex"* because for Freud, everything was related to, and explained by sex.

In this kata, the function will take a string as its argument, and return a string with every word replaced by the explanation to everything, according to Freud. Note that an empty string, or no arguments, should return an empty string.

Language: Python

Kata Level: 8

Solution:

def to\_freud(sentence):

sentence = sentence.split()

result = len(sentence) \* " sex"

return result.strip()

[Get Nth Even Number](https://www.codewars.com/kata/5933a1f8552bc2750a0000ed)

### **Description:**

Return the Nth Even Number

Example(Input --> Output)

1 --> 0 (the first even number is 0)

3 --> 4 (the 3rd even number is 4 (0, 2, 4))

100 --> 198

1298734 --> 2597466

The input will not be 0.

Language: Python

Kata Level: 8

Solution:

def nth\_even(n):

return 2 \* (n - 1)

[Function 1 - hello world](https://www.codewars.com/kata/523b4ff7adca849afe000035)

### **Description:**

Make a simple function called greet that returns the most-famous "hello world!".

### **Style Points**

Sure, this is about as easy as it gets. But how clever can you be to create the most creative "hello world" you can think of? What is a "hello world" solution you would want to show your friends?

Language: Python

Kata Level: 8

Solution:

def greet():

return "hello world!"# Write a function `greet` that returns "hello world!"

[Get the mean of an array](https://www.codewars.com/kata/563e320cee5dddcf77000158)

### **Description:**

It's the academic year's end, the fateful moment of your school report. The averages must be calculated. All the students come to you and entreat you to calculate their average for them. Easy! You just need to write a script.

Return the average of the given array rounded down to its nearest integer.

The array will never be empty.

Language: Python

Kata Level: 8

Solution:

def get\_average(marks):

return int(sum(marks) / len(marks))

[Get Planet Name By ID](https://www.codewars.com/kata/515e188a311df01cba000003)

### **Description:**

The function is not returning the correct values. Can you figure out why?

Example (Input --> Output ):

3 --> "Earth"

Language: Python

Kata Level: 8

Solution:

def get\_planet\_name(id):

name = ""

match id:

case 1:

name = "Mercury"

case 2:

name = "Venus"

case 3:

name = "Earth"

case 4:

name = "Mars"

case 5:

name = "Jupiter"

case 6:

name = "Saturn"

case 7:

name = "Uranus"

case 8:

name = "Neptune"

return name

[5 without numbers !!](https://www.codewars.com/kata/59441520102eaa25260000bf)

### **Description:**

Write a function that always returns 5

Sounds easy right? Just bear in mind that you can't use any of the following characters: 0123456789\*+-/

Good luck :)

Language: Python

Kata Level: 8

Solution:

def unusual\_five():

tuple = ((), (), (), (), ())

return len(tuple)

[Will you make it?](https://www.codewars.com/kata/5861d28f124b35723e00005e)

### **Description:**

You were camping with your friends far away from home, but when it's time to go back, you realize that your fuel is running out and the nearest pump is 50 miles away! You know that on average, your car runs on about 25 miles per gallon. There are 2 gallons left.

Considering these factors, write a function that tells you if it is possible to get to the pump or not.

The function should return true if it is possible and false if not.

Language: Python

Kata Level: 8

Solution:

def zero\_fuel(distance\_to\_pump, mpg, fuel\_left):

return mpg \* fuel\_left >= distance\_to\_pump

assert zero\_fuel(50, 25, 2) == True

assert zero\_fuel(100, 50, 1) == False

[Who ate the cookie?](https://www.codewars.com/kata/55a996e0e8520afab9000055)

### **Description:**

For this problem you must create a program that says who ate the last cookie. If the input is a string then "Zach" ate the cookie. If the input is a float or an int then "Monica" ate the cookie. If the input is anything else "the dog" ate the cookie. The way to return the statement is: "Who ate the last cookie? It was (name)!"

Ex: Input = "hi" --> Output = "Who ate the last cookie? It was Zach! (The reason you return Zach is because the input is a string)

Note: Make sure you return the correct message with the correct spaces and punctuation.

Please leave feedback for this kata. Cheers!

Language: Python

Kata Level: 8

Solution:

def cookie(x):

if not isinstance(x, bool) and isinstance(x, str):

return "Who ate the last cookie? It was Zach!"

elif not isinstance(x, bool) and (isinstance(x, int) or isinstance(x, float)):

return "Who ate the last cookie? It was Monica!"

return "Who ate the last cookie? It was the dog!"

[Sum of Multiples](https://www.codewars.com/kata/57241e0f440cd279b5000829)

### **Description:**

## **Your Job**

Find the sum of all multiples of n below m

## **Keep in Mind**

* n and m are natural numbers (positive integers)
* m is excluded from the multiples

## **Examples**

sumMul(2, 9) ==> 2 + 4 + 6 + 8 = 20

sumMul(3, 13) ==> 3 + 6 + 9 + 12 = 30

sumMul(4, 123) ==> 4 + 8 + 12 + ... = 1860

sumMul(4, -7) ==> "INVALID"

Language: Python

Kata Level: 8

Solution:

def sum\_mul(n, m):

if m <= 0 or n <= 0:

return "INVALID"

return sum([x for x in range(n, m) if x % n == 0])

[Sum The Strings](https://www.codewars.com/kata/5966e33c4e686b508700002d)

### **Description:**

Create a function that takes 2 integers in form of a string as an input, and outputs the sum (also as a string):

Example: (Input1, Input2 -->Output)

"4", "5" --> "9"

"34", "5" --> "39"

"", "" --> "0"

"2", "" --> "2"

"-5", "3" --> "-2"

Notes:

* If either input is an empty string, consider it as zero.
* Inputs and the expected output will never exceed the signed 32-bit integer limit (2^31 - 1)

Language: Python

Kata Level: 8

Solution:

def sum\_str(a, b):

if not a:

a = 0

if not b:

b = 0

return str(int(a) + int(b))

[Sum Mixed Array](https://www.codewars.com/kata/57eaeb9578748ff92a000009)

### **Description:**

Given an array of integers as strings and numbers, return the sum of the array values as if all were numbers.

Return your answer as a number.

Language: Python

Kata Level: 8

Solution:

def sum\_mix(arr):

return sum([int(x) for x in arr])

[Return the day](https://www.codewars.com/kata/59dd3ccdded72fc78b000b25)

### **Description:**

Complete the function which returns the weekday according to the input number:

* 1 returns "Sunday"
* 2 returns "Monday"
* 3 returns "Tuesday"
* 4 returns "Wednesday"
* 5 returns "Thursday"
* 6 returns "Friday"
* 7 returns "Saturday"
* Otherwise returns "Wrong, please enter a number between 1 and 7"

Language: Python

Kata Level: 8

Solution:

def whatday(num):

days = {

1: 'Sunday',

2: 'Monday',

3: 'Tuesday',

4: 'Wednesday',

5: 'Thursday',

6: 'Friday',

7: 'Saturday'

}

error = 'Wrong, please enter a number between 1 and 7'

return days.get(num, error)

[Removing Elements](https://www.codewars.com/kata/5769b3802ae6f8e4890009d2)

Language: Python

Kata Level: 8

Solution:

def remove\_every\_other(my\_list):

return [my\_list[x] for x in range(len(my\_list)) if x % 2 == 0]

[Remove String Spaces](https://www.codewars.com/kata/57eae20f5500ad98e50002c5)

### **Description:**

Write a function that removes the spaces from the string, then return the resultant string.

Examples (Input -> Output):

"8 j 8 mBliB8g imjB8B8 jl B" -> "8j8mBliB8gimjB8B8jlB"

"8 8 Bi fk8h B 8 BB8B B B B888 c hl8 BhB fd" -> "88Bifk8hB8BB8BBBB888chl8BhBfd"

"8aaaaa dddd r " -> "8aaaaaddddr"

Language: Python

Kata Level: 8

Solution:

def no\_space(x):

return x.replace(" ", "")

[Calculate average](https://www.codewars.com/kata/57a2013acf1fa5bfc4000921)

### **Description:**

Write a function which calculates the average of the numbers in a given array.

Note: Empty arrays should return 0.

Language: Python

Kata Level: 8

Solution:

def find\_average(numbers):

if numbers:

return sum(numbers)/len(numbers)

return 0

[Bin to Decimal](https://www.codewars.com/kata/57a5c31ce298a7e6b7000334)

### **Description:**

Complete the function which converts a binary number (given as a string) to a decimal number.

Language: Python

Kata Level: 8

Solution:

def bin\_to\_decimal(inp):

return int(inp, 2)

[Beginner Series #2 Clock](https://www.codewars.com/kata/55f9bca8ecaa9eac7100004a)

### **Description:**

Clock shows h hours, m minutes and s seconds after midnight.

Your task is to write a function that returns the time since midnight in milliseconds.

## **Example:**

h = 0

m = 1

s = 1

result = 61000

Input constraints:

* 0 <= h <= 23
* 0 <= m <= 59
* 0 <= s <= 59

Language: Python

Kata Level: 8

Solution:

def past(h, m, s):

return ((h \* 60 + m) \* 60 + s) \* 1000

[Basic Mathematical Operations](https://www.codewars.com/kata/57356c55867b9b7a60000bd7)

### **Description:**

Your task is to create a function that does four basic mathematical operations.

The function should take three arguments - operation(string/char), value1(number), value2(number).  
The function should return result of numbers after applying the chosen operation.

### **Examples(Operator, value1, value2) --> output**

('+', 4, 7) --> 11

('-', 15, 18) --> -3

('\*', 5, 5) --> 25

('/', 49, 7) --> 7

Language: Python

Kata Level: 8

Solution:

def basic\_op(operator, value1, value2):

return {

"+": value1 + value2,

"-": value1 - value2,

"\*": value1 \* value2,

"/": value1 / value2,

}[operator]

[Area or Perimeter](https://www.codewars.com/kata/5ab6538b379d20ad880000ab)

### **Description:**

You are given the length and width of a 4-sided polygon. The polygon can either be a rectangle or a square.  
If it is a square, return its area. If it is a rectangle, return its perimeter.

Example(Input1, Input2 --> Output):

6, 10 --> 32

3, 3 --> 9

Note: for the purposes of this kata you will assume that it is a square if its length and width are equal, otherwise it is a rectangle.

Language: Python

Kata Level: 8

Solution:

def area\_or\_perimeter(l, w):

return l \* w if l == w else (l + w) \* 2

[Are You Playing Banjo?](https://www.codewars.com/kata/53af2b8861023f1d88000832)

### **Description:**

Create a function which answers the question "Are you playing banjo?".  
If your name starts with the letter "R" or lower case "r", you are playing banjo!

The function takes a name as its only argument, and returns one of the following strings:

name + " plays banjo"

name + " does not play banjo"

Names given are always valid strings.

Language: Python

Kata Level: 8

Solution:

def are\_you\_playing\_banjo(name):

return name + " plays banjo" if name[0].lower() == "r" else name + " does not play banjo"

[A Needle in the Haystack](https://www.codewars.com/kata/56676e8fabd2d1ff3000000c)

### **Description:**

Can you find the needle in the haystack?

Write a function findNeedle() that takes an array full of junk but containing one "needle"

After your function finds the needle it should return a message (as a string) that says:

"found the needle at position " plus the index it found the needle, so:

Example(Input --> Output)

["hay", "junk", "hay", "hay", "moreJunk", "needle", "randomJunk"] --> "found the needle at position 5"

Note: In COBOL, it should return "found the needle at position 6"

Language: Python

Kata Level: 8

Solution:

def find\_needle(haystack):

needle = "needle"

return "found the needle at position " + str(haystack.index(needle))

[String Templates - Bug Fixing #5](https://www.codewars.com/kata/55c90cad4b0fe31a7200001f)

### **Description:**

Oh no! Timmy hasn't followed instructions very carefully and forgot how to use the new String Template feature, Help Timmy with his string template so it works as he expects!

Language: Python

Kata Level: 8

Solution:

def build\_string(\*args):

return "I like {}!".format(", ".join(args))

[Switch it Up!](https://www.codewars.com/kata/5808dcb8f0ed42ae34000031)

### **Description:**

When provided with a number between 0-9, return it in words. Note that the input is guaranteed to be within the range of 0-9.

Input: 1

Output: "One".

If your language supports it, try using a [switch statement](https://en.wikipedia.org/wiki/Switch_statement).

Language: Python

Kata Level: 8

Solution:

def switch\_it\_up(number):

nums = {

1: "One",

2: "Two",

3: "Three",

4: "Four",

5: "Five",

6: "Six",

7: "Seven",

8: "Eight",

9: "Nine",

0: "Zero"

}

return nums[number]

[Return to Sanity](https://www.codewars.com/kata/514a7ac1a33775cbb500001e)

### 

### **Description:**

This function should return an object, but it's not doing what's intended. What's wrong?

Language: Python

Kata Level: 8

Solution:

def mystery():

return {

'sanity': 'Hello'

}

[Quarter of the year](https://www.codewars.com/kata/5ce9c1000bab0b001134f5af)

### **Description:**

Given a month as an integer from 1 to 12, return to which quarter of the year it belongs as an integer number.

For example: month 2 (February), is part of the first quarter; month 6 (June), is part of the second quarter; and month 11 (November), is part of the fourth quarter.

Constraint:

1 <= month <= 12

Language: Python

Kata Level: 8

Solution:

def quarter\_of(month):

return (month + 2) // 3

[L1: Set Alarm](https://www.codewars.com/kata/568dcc3c7f12767a62000038)

### **Description:**

Write a function named setAlarm/set\_alarm/set-alarm/setalarm (depending on language) which receives two parameters. The first parameter, employed, is true whenever you are employed and the second parameter, vacation is true whenever you are on vacation.

The function should return true if you are employed and not on vacation (because these are the circumstances under which you need to set an alarm). It should return false otherwise. Examples:

employed | vacation

true | true => false

true | false => true

false | true => false

false | false => false

Language: Python

Kata Level: 8

Solution:

def set\_alarm(employed, vacation):

return employed and not vacation

[L1: Bartender, drinks!](https://www.codewars.com/kata/568dc014440f03b13900001d)

### **Description:**

Complete the function that receives as input a string, and produces outputs according to the following table:

| **Input** | **Output** |
| --- | --- |
| "Jabroni" | "Patron Tequila" |
| "School Counselor" | "Anything with Alcohol" |
| "Programmer" | "Hipster Craft Beer" |
| "Bike Gang Member" | "Moonshine" |
| "Politician" | "Your tax dollars" |
| "Rapper" | "Cristal" |
| *anything else* | "Beer" |

Note: *anything else* is the default case: if the input to the function is not any of the values in the table, then the return value should be "Beer".

Make sure you cover the cases where certain words do not show up with correct capitalization. For example, the input "pOLitiCIaN" should still return "Your tax dollars".

Language: Python

Kata Level: 8

Solution:

def get\_drink\_by\_profession(param):

words = {

"Jabroni": "Patron Tequila",

"School Counselor": "Anything with Alcohol",

"Programmer": "Hipster Craft Beer",

"Bike Gang Member": "Moonshine",

"Politician": "Your tax dollars",

"Rapper": "Cristal"

}

return words.get(param.title(), "Beer")

[Keep up the hoop](https://www.codewars.com/kata/55cb632c1a5d7b3ad0000145)

### **Description:**

Alex just got a new hula hoop, he loves it but feels discouraged because his little brother is better than him.

Write a program where Alex can input (n) how many times the hoop goes round and it will return him an encouraging message:

* If Alex gets 10 or more hoops, return the string "Great, now move on to tricks".
* If he doesn't get 10 hoops, return the string "Keep at it until you get it".

Language: Python

Kata Level: 8

Solution:

def hoop\_count(n):

return "Great, now move on to tricks" if n >= 10 else "Keep at it until you get it"

assert hoop\_count(3) == "Keep at it until you get it"

assert hoop\_count(11) == "Great, now move on to tricks"

[Keep Hydrated!](https://www.codewars.com/kata/582cb0224e56e068d800003c)

### **Description:**

Nathan loves cycling.

Because Nathan knows it is important to stay hydrated, he drinks 0.5 litres of water per hour of cycling.

You get given the time in hours and you need to return the number of litres Nathan will drink, rounded to the smallest value.

For example:

hours = 3 ----> liters = 1

hours = 6.7---> liters = 3

hours = 11.8--> liters = 5

Input data is available from the table cycling, which has 2 columns: id and hours. For each row, you have to return 3 columns: id, hours and liters (not litres, it's a difference from the kata description)

Language: Python

Kata Level: 8

Solution:

def litres(time):

return int(time \* 0.5)

assert litres(2) == 1

assert litres(1.4) == 0

assert litres(12.3) == 6

[Kata Example Twist](https://www.codewars.com/kata/525c1a07bb6dda6944000031)

### **Description:**

This is an easy twist to the example kata (provided by Codewars when learning how to create your own kata).

Add the value "codewars" to the array websites 1,000 times.

Language: Python

Kata Level: 8

Solution:

websites = ["codewars"] \* 1000

[Jenny's secret message](https://www.codewars.com/kata/55225023e1be1ec8bc000390)

### **Description:**

Jenny has written a function that returns a greeting for a user. However, she's in love with Johnny, and would like to greet him slightly different. She added a special case to her function, but she made a mistake.

Can you help her?

Language: Python

Kata Level: 8

Solution:

def greet(name):

if name == "Johnny":

return "Hello, my love!"

return "Hello, {name}!".format(name=name)

[Is your period late?](https://www.codewars.com/kata/578a8a01e9fd1549e50001f1)

### 

### **Description:**

In this kata, we will make a function to test whether a period is late.

Our function will take three parameters:

last - The Date object with the date of the last period

today - The Date object with the date of the check

cycleLength - Integer representing the length of the cycle in days

Return true if the number of days passed from last to today is greater than cycleLength. Otherwise, return false.

Language: Python

Kata Level: 8

Solution:

def period\_is\_late(last, today, cycle\_length):

return (today - last).days > cycle\_length

[Is this my tail?](https://www.codewars.com/kata/56f695399400f5d9ef000af5)

### **Description:**

Some new animals have arrived at the zoo. The zoo keeper is concerned that perhaps the animals do not have the right tails. To help her, you must correct the broken function to make sure that the second argument (tail), is the same as the last letter of the first argument (body) - otherwise the tail wouldn't fit!

If the tail is right return true, else return false.

The arguments will always be non empty strings, and normal letters.

Language: Python

Kata Level: 8

Solution:

def correct\_tail(body, tail):

return body[-1] == tail

[Draw stairs](https://www.codewars.com/kata/5b4e779c578c6a898e0005c5)

### **Description:**

Given a number n, draw stairs using the letter "I", n tall and n wide, with the tallest in the top left.

For example n = 3 result in:

"I\n I\n I"

or printed:

I

I

I

Another example, a 7-step stairs should be drawn like this:

I

I

I

I

I

I

I

Language: Python

Kata Level: 8

Solution:

def draw\_stairs(n):

result = ""

for i in range(1, n + 1):

result += "I\n" + " " \* i

return result.rstrip()

[101 Dalmatians - squash the bugs, not the dogs!](https://www.codewars.com/kata/56f6919a6b88de18ff000b36)

### **Description:**

Your friend has been out shopping for puppies (what a time to be alive!)... He arrives back with multiple dogs, and you simply do not know how to respond!

By repairing the function provided, you will find out exactly how you should respond, depending on the number of dogs he has.

The number of dogs will always be a number and there will always be at least 1 dog.

Good luck!

Language: Python

Kata Level: 8

Solution:

def how\_many\_dalmatians(number):

dogs = [

"Hardly any",

"More than a handful!",

"Woah that's a lot of dogs!",

"101 DALMATIONS!!!"

]

if number <= 10:

return dogs[0]

elif number <= 50:

return dogs[1]

elif number == 101:

return dogs[3]

else:

return dogs[2]

[Sum of angles](https://www.codewars.com/kata/5a03b3f6a1c9040084001765)

### **Description:**

Find the total sum of internal angles (in degrees) in an n-sided simple polygon. N will be greater than 2.

Language: SQL

Kata Level: 7

Solution:

SELECT (n-2) \* 180 as res

FROM angle;

[SQL Basics - Position](https://www.codewars.com/kata/59401e0e54a655a298000040)

### **Description:**

You have access to a table of monsters as follows:

monsters schema

* id
* name
* legs
* arms
* characteristics

In each row, the characteristic column has a single comma. Your job is to find it using position(). You must return a table with the format as follows:

output schema

* id
* name
* comma

The comma column will contain the position of the comma within the characteristics string. Order the results by comma.

Language: SQL

Kata Level: 7

Solution:

SELECT id, name, POSITION(',' IN characteristics) AS comma

FROM monsters

ORDER BY comma;

[Hello SQL World!](https://www.codewars.com/kata/581283eb0a5fb13e06000020)

### **Description:**

Hello SQL!

Return a table with a single column named Greeting with the phrase 'hello world!'

*Please use Data Manipulation Language and not Data Definition Language to solve this Kata*

Language: SQL

Kata Level: 7

Solution:

SELECT 'hello world!' AS "Greeting";

[SQL Basics: Simple JOIN with COUNT](https://www.codewars.com/kata/580918e24a85b05ad000010c)

### **Description:**

For this challenge you need to create a simple SELECT statement that will return all columns from the people table, and join to the toys table so that you can return the COUNT of the toys

### **people table schema**

* id
* name

### **toys table schema**

* id
* name
* people\_id

You should return all people fields as well as the toy count as "toy\_count".

*NOTE: Your solution should use pure SQL. Ruby is used within the test cases to do the actual testing.*

Language: SQL

Kata Level: 7

Solution:

SELECT p.\*, COUNT(t) AS toy\_count

FROM people p

JOIN toys t ON p.id = t.people\_id

GROUP BY p.id;

[Countries Capitals for Trivia Night (SQL for Beginners #6)](https://www.codewars.com/kata/5e5f09dc0a17be0023920f6f)

### **Description:**

Your friends told you that if you keep coding on your computer, you are going to hurt your eyes. They suggested that you go with them to trivia night at the local club.

Once you arrive at the club, you realize the true motive behind your friends' invitation. They know that you are a computer nerd, and they want you to query the countries table and get the answers to the trivia questions.

Schema of the countries table:

* country (String)
* capital (String)
* continent (String)

The first question: from the African countries that start with the character E, get the names of their capitals ordered alphabetically.

* You should only give the names of the capitals. Any additional information is just noise
* If you get more than 3, you will be kicked out, for being too smart
* Also, this database is crowd-sourced, so sometimes Africa is written Africa and in other times Afrika.

Resources:

* [SQL LIKE](https://www.w3schools.com/SQL/sql_like.asp) Operator
* [SQL IN Operator](https://www.w3schools.com/SQL/sql_in.asp)
* [SQL ORDER BY](https://www.w3schools.com/SQL/sql_orderby.asp)

NOTE: Your solution should use pure SQL. Ruby is used within the test cases just to validate your answer.

Language: SQL

Kata Level: 7

Solution:

SELECT capital

FROM countries

WHERE continent IN ('Africa', 'Afrika') AND country LIKE 'E%'

ORDER BY capital

LIMIT 3;

[Best-Selling Books (SQL for Beginners #5)](https://www.codewars.com/kata/591127cbe8b9fb05bd00004b)

### **Description:**

You work at a bookstore. It's the end of the month, and you need to find out the 5 bestselling books at your store. Use a select statement to list names, authors, and number of copies sold of the 5 books which were sold most.

books table schema

* name
* author
* copies\_sold

NOTE: Your solution should use pure SQL. Ruby is used within the test cases just to validate your answer.

Language: SQL

Kata Level: 7

Solution:

SELECT \*

FROM books

ORDER BY copies\_sold DESC

LIMIT 5;

[SQL Basics: Simple JOIN](https://www.codewars.com/kata/5802e32dd8c944e562000020)

### **Description:**

For this challenge, you need to create a simple SELECT statement that will return all columns from the products table, and join to the companies table so that you can return the company name.

### **products table schema**

* id
* name
* isbn
* company\_id
* price

### **companies table schema**

* id
* name

You should return all product fields as well as the company name as "company\_name".

*NOTE: Your solution should use pure SQL. Ruby is used within the test cases to do the actual testing.*

Language: SQL

Kata Level: 7

Solution:

SELECT p.\*,

c.name AS company\_name

FROM products p

JOIN companies c ON p.company\_id = c.id;

[SQL Basics: Simple GROUP BY](https://www.codewars.com/kata/58111f4ee10b5301a7000175)

### **Description:**

For this challenge you need to create a simple GROUP BY statement, you want to group all the people by their age and count the people who have the same age.

### **people table schema**

* id
* name
* age

### **select table schema**

* age [group by]
* people\_count (people count)

*NOTE: Your solution should use pure SQL. Ruby is used within the test cases to do the actual testing.*

Language: SQL

Kata Level: 7

Solution:

SELECT age, COUNT(age) AS people\_count

FROM people

GROUP BY age;

[Easy SQL: Counting and Grouping](https://www.codewars.com/kata/594633020a561e329a0000a2)

### **Description:**

Given a demographics table in the following format:

\*\* demographics table schema \*\*

* id
* name
* birthday
* race

you need to return a table that shows a count of each race represented, ordered by the count in descending order as:

\*\* output table schema \*\*

* race
* count

Language: SQL

Kata Level: 7

Solution:

SELECT race,

COUNT(race)

FROM demographics

GROUP BY race

ORDER BY COUNT (race) DESC;

[SQL Grasshopper: Select Columns](https://www.codewars.com/kata/582365c18917435ab3000020)

### **Description:**

# **Greetings Grasshopper!**

Using only SQL, write a query that returns all rows in the custid, custname, and custstate columns from the customers table.

### **Table Description for customers:**

| **Column** | **Data Type** | **Size** | **Sample** |
| --- | --- | --- | --- |
| custid | integer | 8 | 4 |
| custname | string | 50 | Anakin Skywalker |
| custstate | string | 50 | Tatooine |
| custard | string | 50 | R2-D2 |

Your solution should contain only SQL.

Language: SQL

Kata Level: 8

Solution:

SELECT

custid,

custname,

custstate

FROM customers;

[SQL Basics: Simple WHERE and ORDER BY](https://www.codewars.com/kata/5809508cc47d327c12000084)

### **Description:**

For this challenge, you need to create a simple SELECT statement that will return all columns from the people table WHERE their age is over 50

### **people table schema**

* id
* name
* age

You should return all people fields where their age is over 50 and order by the age descending

*NOTE: Your solution should use pure SQL. Ruby is used within the test cases to do the actual testing.*

Language: SQL

Kata Level: 8

Solution:

SELECT \*

FROM people

WHERE age > 50

ORDER BY age DESC;

[SQL Basics: Simple DISTINCT](https://www.codewars.com/kata/58111670e10b53be31000108)

### **Description:**

For this challenge you need to create a simple DISTINCT statement, you want to find all the unique ages.

### **people table schema**

* id
* name
* age

### **select table schema**

* age (distinct)

*NOTE: Your solution should use pure SQL. Ruby is used within the test cases to do the actual testing.*

Language: SQL

Kata Level: 8

Solution:

SELECT DISTINCT age

FROM people;

[SQL Basics: Simple MIN / MAX](https://www.codewars.com/kata/581113dce10b531b1d0000bd)

### **Description:**

For this challenge, you need to create a simple MIN / MAX statement that will return the Minimum and Maximum ages out of all the people.

### **people table schema**

* id
* name
* age

### **select table schema**

* age\_min (minimum of ages)
* age\_max (maximum of ages)

*NOTE: Your solution should use pure SQL. Ruby is used within the test cases to do the actual testing.*

Language: SQL

Kata Level: 8

Solution:

SELECT min(age) AS age\_min, max(age) AS age\_max

FROM people;

[1. Find all active students](https://www.codewars.com/kata/5809b9ef88b750ab180001ec)

### **Description:**

Create a simple SELECT query to display student information of all ACTIVE students.

TABLE STRUCTURE:

| **students** | | | |
| --- | --- | --- | --- |
| Id (integer) | FirstName (text) | LastName (text) | IsActive (boolean) |

Note:

* IsActive (true = 1 or false = 0)
* see specification: [Datatypes In SQLite](https://www.sqlite.org/datatype3.html)

Language: SQL

Kata Level: 8

Solution:

SELECT \*

FROM students

WHERE IsActive;

[SQL Basics: Mod](https://www.codewars.com/kata/594a9592704e4d21bc000131)

### **Description:**

Given the following table 'decimals':

\*\* decimals table schema \*\*

* id
* number1
* number2

Return a table with one column (mod) which is the output of the number1 modulus number2.

Language: SQL

Kata Level: 8

Solution:

SELECT mod(number1, number2) AS mod

FROM decimals;

[Collect Tuition (SQL for Beginners #4)](https://www.codewars.com/kata/5910b0d378cc2ba91400000b)

### **Description:**

You are working for a local school and are responsible for collecting student tuition. You have a list of all students, some of them have already paid tuition and some haven't. Write a select statement to get a list of all students who haven't paid their tuition yet. The list should include all the data available about these students.

students table schema

* name (string)
* age (integer)
* semester (integer)
* mentor (string)
* tuition\_received (Boolean)

NOTE: Your solution should use pure SQL. Ruby is used within the test cases just to validate your answer.

Language: SQL

Kata Level: 8

Solution:

SELECT \*

FROM students

WHERE tuition\_received is false;

[Adults only (SQL for Beginners #1)](https://www.codewars.com/kata/590a95eede09f87472000213)

### **Description:**

In your application, there is a section for adults only. You need to get a list of names and ages of users from the users table, who are 18 years old or older.

users table schema

* name
* age

NOTE: Your solution should use pure SQL. Ruby is used within the test cases just to validate your answer.

Language: SQL

Kata Level: 8

Solution:

SELECT name, age

FROM users

WHERE age >= 18;

[SQL Basics: Simple SUM](https://www.codewars.com/kata/58110da0009b4f7ef80000ad)

### **Description:**

For this challenge, you need to create a simple SUM statement that will sum all the ages.

### **people table schema**

* id
* name
* age

### **select table schema**

* age\_sum (sum of ages)

*NOTE: Your solution should use pure SQL. Ruby is used within the test cases to do the actual testing.*

*NOTE2: You need to use ALIAS for creating age\_sum*

Language: SQL

Kata Level: 8

Solution:

SELECT SUM(age) AS age\_sum

FROM people;

[Easy SQL - Ordering](https://www.codewars.com/kata/593ed37c93350098d600001d)

### **Description:**

Your task is to sort the information in the provided table 'companies' by number of employees (high to low). The returned table should be in the same format as provided:

companies table schema

* id
* ceo
* motto
* employees

The solution should use pure SQL. Ruby is only used in test cases.

Language: SQL

Kata Level: 8

Solution:

SELECT c.\*

FROM companies c

ORDER BY c.employees DESC;

[Easy SQL: Rounding Decimals](https://www.codewars.com/kata/594a6133704e4daf5d00003d)

### **Description:**

Given the following table 'decimals':

\*\* decimals table schema \*\*

* id
* number1
* number2

Return a table with two columns (number1, number2), the value in number1 should be rounded down and the value in number2 should be rounded up.

Language: SQL

Kata Level: 8

Solution:

SELECT floor(number1) AS number1,

ceiling(number2) AS number2

FROM decimals;

[Easy SQL: LowerCase](https://www.codewars.com/kata/594800ba6fb152624300006d)

### **Description:**

Given a demographics table in the following format:

\*\* demographics table schema \*\*

* id
* name
* birthday
* race

you need to return the same table where all letters are lowercase in the race column.

Language: SQL

Kata Level: 8

Solution:

SELECT id, name, birthday, lower(race) AS race

FROM demographics;

[Multiply](https://www.codewars.com/kata/50654ddff44f800200000004)

### **Description:**

This code does not execute properly. Try to figure out why.

Language: SQL

Kata Level: 8

Solution:

SELECT (price \* amount) AS total

FROM items;

[Easy SQL: Square Root and Log](https://www.codewars.com/kata/594a691720ac16a544000075)

Language: SQL

Kata Level: 8

Solution:

SELECT sqrt(number1) AS root,

log(number2) AS log

FROM decimals;

[Invert values](https://www.codewars.com/kata/5899dc03bc95b1bf1b0000ad)

Language: Python

Kata Level: 8

Solution:

def invert(lst):

return [x \* -1 for x in lst]

[Grader](https://www.codewars.com/kata/53d16bd82578b1fb5b00128c)

### **Description:**

Create a function that takes a number as an argument and returns a grade based on that number.

| **Score** | **Grade** |
| --- | --- |
| Anything greater than 1 or less than 0.6 | "F" |
| 0.9 or greater | "A" |
| 0.8 or greater | "B" |
| 0.7 or greater | "C" |
| 0.6 or greater | "D" |

Examples:

grader(0) should be "F"

grader(1.1) should be "F"

grader(0.9) should be "A"

grader(0.8) should be "B"

grader(0.7) should be "C"

grader(0.6) should be "D"

Language: Python

Kata Level: 8

Solution:

def grader(score):

if score < 0.6:

return "F"

elif score < 0.7:

return "D"

elif score < 0.8:

return "C"

elif score < 0.9:

return "B"

elif score <= 1:

return "A"

return "F"

[Fake Binary](https://www.codewars.com/kata/57eae65a4321032ce000002d)

### **Description:**

Given a string of digits, you should replace any digit below 5 with '0' and any digit 5 and above with '1'. Return the resulting string.

Note: input will never be an empty string

Language: Python

Kata Level: 8

Solution:

def fake\_bin(x):

result = ''

for symbol in x:

if int(symbol) < 5:

result += '0'

else:

result += '1'

return result

[Grasshopper - Terminal game combat function](https://www.codewars.com/kata/586c1cf4b98de0399300001d)

### **Description:**

Create a combat function that takes the player's current health and the amount of damage received, and returns the player's new health. Health can't be less than 0.

Language: Python

Kata Level: 8

Solution:

def combat(health, damage):

return health - damage if health >= damage else 0

[Ensure question](https://www.codewars.com/kata/5866fc43395d9138a7000006)

**Description:**

Given a string, write a function that returns the string with a question mark ("?") appends to the end, unless the original string ends with a question mark, in which case, returns the original string.

For example (Input --> Output)

"Yes" --> "Yes?"

"No?" --> "No?"

Language: Python

Kata Level: 8

Solution:

def ensure\_question(s):

return s + "?" if not s.endswith("?") else s

[Double Char](https://www.codewars.com/kata/56b1f01c247c01db92000076)

### **Description:**

Given a string, you have to return a string in which each character (case-sensitive) is repeated once.

### **Examples (Input -> Output):**

\* "String" -> "SSttrriinngg"

\* "Hello World" -> "HHeelllloo WWoorrlldd"

\* "1234!\_ " -> "11223344!!\_\_ "

Language: Python

Kata Level: 8

Solution:

Good Luck!

def double\_char(s):

result = ""

for char in s:

result += char \* 2

return result

[Duck Duck Goose](https://www.codewars.com/kata/582e0e592029ea10530009ce)

### **Description:**

The objective of [Duck, duck, goose](https://en.wikipedia.org/wiki/Duck,_duck,_goose) is to *walk in a circle*, tapping on each player's head until one is chosen.

Task:

Given an array of Player objects and a position (first position is 1), return the name of the chosen Player.  
name is a property of Player objects, e.g Player.name

Example:

duck\_duck\_goose([a, b, c, d], 1) should return a.name

duck\_duck\_goose([a, b, c, d], 5) should return a.name

duck\_duck\_goose([a, b, c, d], 4) should return d.name

Language: Python

Kata Level: 8

Solution:

def duck\_duck\_goose(players, goose):

while len(players) < goose:

goose = goose - len(players)

return players[goose - 1].name

[Drink about](https://www.codewars.com/kata/56170e844da7c6f647000063)

### **Description:**

* Kids drink toddy.
* Teens drink Coke.
* Young adults drink beer.
* Adults drink whisky.

Make a function that receives age, and returns what they drink.

Rules:

* Children under 14 old.
* Teens under 18 old.
* Young under 21 old.
* Adults have 21 or more.

Examples: (Input --> Output)

13 --> "drink toddy"

17 --> "drink coke"

18 --> "drink beer"

20 --> "drink beer"

30 --> "drink whisky"

Language: Python

Kata Level: 8

Solution:

def people\_with\_age\_drink(age):

if age < 14:

return "drink toddy"

elif age < 18:

return "drink coke"

elif age < 21:

return "drink beer"

return "drink whisky"

[Count the Monkeys!](https://www.codewars.com/kata/56f69d9f9400f508fb000ba7)

### **Description:**

You take your son to the forest to see the monkeys. You know that there is a certain number there (n), but your son is too young to just appreciate the full number, he has to start counting them from 1.

As a good parent, you will sit and count on him. Given the number (n), populate an array with all numbers up to and including that number, but excluding zero.

For example(Input --> Output):

10 --> [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

1 --> [1]

Language: Python

Kata Level: 8

Solution:

def monkey\_count(n):

return [x for x in range(1, n + 1)]

[Evil or Odious](https://www.codewars.com/kata/56fcfad9c7e1fa2472000034)

### **Description:**

The number n is Evil if it has an even number of 1's in its binary representation.  
The first few Evil numbers: 3, 5, 6, 9, 10, 12, 15, 17, 18, 20  
  
The number n is Odious if it has an odd number of 1's in its binary representation.  
The first few Odious numbers: 1, 2, 4, 7, 8, 11, 13, 14, 16, 19  
  
You have to write a function that determines if a number is Evil or Odious, the function should return "It's Evil!" in case of an evil number and "It's Odious!" in case of an odious number.

good luck :)

Language: Python

Kata Level: 8

Solution:

def evil(n):

bin\_number = bin(n)[2:]

return "It's Evil!" if bin\_number.count("1") % 2 == 0 else "It's Odious!"

[Even or Odd](https://www.codewars.com/kata/53da3dbb4a5168369a0000fe)

### **Description:**

You will be given a table number, with one column number.

Return a dataset with two columns: number and is\_even, where number contains the original input value, and is\_even containing "Even" or "Odd" depending on number column values.

### **Numbers table schema**

\* number INT

### **Output table schema**

\* number INT

\* is\_even STRING

Language: Python

Kata Level: 8

Solution:

def even\_or\_odd(number):

return 'Even' if number % 2 == 0 else 'Odd'

[Grasshopper - If/else syntax debug](https://www.codewars.com/kata/57089707fe2d01529f00024a)

### **Description:**

## **If/else syntax debug**

While making a game, your partner, Greg, decided to create a function to check if the user is still alive called checkAlive/CheckAlive/check\_alive. Unfortunately, Greg made some errors while creating the function.

checkAlive/CheckAlive/check\_alive should return true if the player's health is greater than 0 or false if it is 0 or below.

The function receives one parameter health which will always be a whole number between -10 and 10.

Language: Python

Kata Level: 8

Solution:

def check\_alive(health):

return False if health <= 0 else True

[Grasshopper - Messi goals function](https://www.codewars.com/kata/55f73be6e12baaa5900000d4)

### **Description:**

# **Messi goals function**

[Messi](https://en.wikipedia.org/wiki/Lionel_Messi) is a soccer player with goals in three leagues:

* LaLiga
* Copa del Rey
* Champions

Complete the function to return his total number of goals in all three leagues.

Note: the input will always be valid.

For example:

5, 10, 2 --> 17

Language: Python

Kata Level: 8

Solution:

def goals(\*args):

return sum(args)

[Grasshopper - Terminal Game #1](https://www.codewars.com/kata/55e8aba23d399a59500000ce)

### **Description:**

## **Terminal Game - Create Hero Prototype**

In this first kata in the series, you need to define a Hero prototype to be used in a terminal game. The hero should have the following attributes:

| **attribute** | **value** |
| --- | --- |
| name | user argument or 'Hero' |
| position | '00' |
| health | 100 |
| damage | 5 |
| experience | 0 |

Language: Python

Kata Level: 8

Solution:

class Hero(object):

def \_\_init\_\_(self, name="Hero"):

self.name = name

self.position = "00"

self.health = 100

self.damage = 5

self.experience = 0

[Grasshopper - Personalized Message](https://www.codewars.com/kata/5772da22b89313a4d50012f7)

### **Description:**

Create a function that gives a personalized greeting. This function takes two parameters: name and owner.

Use conditionals to return the proper message:

| **case** | **return** |
| --- | --- |
| name equals owner | 'Hello boss' |
| otherwise | 'Hello guest' |

Language: Python

Kata Level: 8

Solution:

def greet(name, owner):

return "Hello boss" if name == owner else "Hello guest"

[Grasshopper - Messi Goals](https://www.codewars.com/kata/55ca77fa094a2af31f00002a)

### **Description:**

## **Messi's Goal Total**

Use variables to find the sum of the goals Messi scored in 3 competitions

## **Information**

Messi goal scoring statistics:

| **Competition** | **Goals** |
| --- | --- |
| La Liga | 43 |
| Champions League | 10 |
| Copa del Rey | 5 |

## **Task**

1. Create these three variables and store the appropriate values using the table above:

* laLigaGoals
* championsLeagueGoals
* copaDelReyGoals

1. Create a fourth variable named totalGoals that stores the sum of all of Messi's goals for this year.

Language: Python

Kata Level: 8

Solution:

la\_liga\_goals = 43

champions\_league\_goals = 10

copa\_del\_rey\_goals = 5

total\_goals = la\_liga\_goals + champions\_league\_goals + copa\_del\_rey\_goals

[Grasshopper - Basic Function Fixer](https://www.codewars.com/kata/56200d610758762fb0000002)

### **Description:**

## **Fix the function**

I created this function to add five to any number that was passed in to it and return the new value. It doesn't throw any errors but it returns the wrong number.

Can you help me fix the function?

Language: Python

Kata Level: 8

Solution:

def add\_five(num):

total = int(num) + 5

return total

assert add\_five(5) == 10

assert add\_five(0) == 5

assert add\_five(-5) == 0

[Grasshopper - Debug sayHello](https://www.codewars.com/kata/5625618b1fe21ab49f00001f)

### **Description:**

## **Debugging sayHello function**

The starship Enterprise has run into some problem when creating a program to greet everyone as they come aboard. It is your job to fix the code and get the program working again!

Example output:

Hello, Mr. Spock

Language: Python

Kata Level: 8

Solution:

def say\_hello(name):

return"Hello, " + name

[Grasshopper - Terminal game move function](https://www.codewars.com/kata/563a631f7cbbc236cf0000c2)

### **Description:**

## **Terminal game move function**

In this game, the hero moves from left to right. The player rolls the dice and moves the number of spaces indicated by the dice two times.

In SQL, you will be given a table moves with columns position and roll. Return a table which uses the current position of the hero and the roll (1-6) and returns the new position in a column res.

### **Example:**

move(3, 6) should equal 15

Language: Python

Kata Level: 8

Solution:

def move(position, roll):

return position + roll \* 2

[Grasshopper - Combine strings](https://www.codewars.com/kata/55f73f66d160f1f1db000059)

### **Description:**

### **Combine strings function**

Create a function named combineNames/combine\_names/CombineNames that accepts two parameters (first and last name). The function should return the full name.

Example:

With "James" as the first name and "Stevens" as the last name should return "James Stevens"

Language: Python

Kata Level: 8

Solution:

def combine\_names(name, surname):

return f"{name} {surname}"

[Grasshopper - Bug Squashing](https://www.codewars.com/kata/56214b6864fe8813f1000019)

### **Description:**

## **Terminal game bug squashing**

You are creating a text-based terminal version of your favorite board game. In the board game, each turn has six steps that must happen in this order: roll the dice, move, combat, get coins, buy health, and print status.

You are using a library that already has the functions below. Create a function named main (PlayTurn for C#) that calls the functions in the proper order stated before.

- combat

- buyHealth

- getCoins

- printStatus

- rollDice

- move

Note: this list only mentions the methods' names, not the order in which they should be called. For the order, refer to the first paragraph.

Language: Python

Kata Level: 8

Solution:

from preloaded import \*

health = 100

position = 0

coins = 0

def main():

roll\_dice()

move()

combat()

get\_coins()

buy\_health()

print\_status()

[Grasshopper - Debug](https://www.codewars.com/kata/55cb854deb36f11f130000e1)

### **Description:**

## **Debug celsius converter**

Your friend is traveling abroad to the United States so he wrote a program to convert fahrenheit to celsius. Unfortunately his code has some bugs.

Find the errors in the code to get the celsius converter working properly.

To convert fahrenheit to celsius:

celsius = (fahrenheit - 32) \* (5/9)

Remember that typically temperatures in the current weather conditions are given in whole numbers. It is possible for temperature sensors to report temperatures with a higher accuracy such as to the nearest tenth. Instrument error though makes this sort of accuracy unreliable for many types of temperature measuring sensors.

Language: Python

Kata Level: 8

Solution:

def convert\_to\_celsius(temperature):

celsius = (temperature - 32) \* (5/9)

return celsius

def weather\_info(temp):

temperature = convert\_to\_celsius(temp)

if (temperature > 0):

return (str(temperature) + " is above freezing temperature")

else:

return (str(temperature) + " is freezing temperature")

[Grasshopper - Summation](https://www.codewars.com/kata/55d24f55d7dd296eb9000030)

### **Description:**

# **Summation**

Write a program that finds the summation of every number from 1 to num. The number will always be a positive integer greater than 0. Your function only needs to return the result, what is shown between parentheses in the example below is how you reach that result and it's not part of it, see the sample tests.

For example (Input -> Output):

2 -> 3 (1 + 2)

8 -> 36 (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8)

Language: Python

Kata Level: 8

Solution:

def summation(num):

return sum(range(1, num+1))

[Grasshopper - Terminal Game Turn Function](https://www.codewars.com/kata/56019d3b2c39ccde76000086)

### **Description:**

## **Terminal game turn function**

You are creating a text-based terminal version of your favorite board game. In the board game, each turn has six steps that must happen in this order: roll the dice, move, combat, get coins, buy more health, and print status.

You are using a library (Game.Logic in C#) that already has the functions below. Create a function named doTurn/DoTurn/do\_turn that calls the functions in the proper order as described in the paragraph above.

- combat

- buyHealth

- getCoins

- printStatus

- rollDice

- move

Language: Python

Kata Level: 8

Solution:

def do\_turn():

[\_() for \_ in (roll\_dice, move, combat, get\_coins, buy\_health, print\_status)]

[Grasshopper - Array Mean](https://www.codewars.com/kata/55d277882e139d0b6000005d)

### **Description:**

## **Find Mean**

Find the mean (average) of a list of numbers in an array.

**Information**

To find the mean (average) of a set of numbers add all of the numbers together and divide by the number of values in the list.

For an example list of 1, 3, 5, 7

1. Add all of the numbers

1+3+5+7 = 16

2. Divide by the number of values in the list. In this example there are 4 numbers in the list.

16/4 = 4

3. The mean (or average) of this list is 4

Language: Python

Kata Level: 8

Solution:

def find\_average(nums):

return sum(nums) / len(nums) if nums else 0

[Counting sheep…](https://www.codewars.com/kata/54edbc7200b811e956000556)

### **Description:**

Consider an array/list of sheep where some sheep may be missing from their place. We need a function that counts the number of sheep present in the array (true means present).

For example,

[true, true, true, false,

true, true, true, true ,

true, false, true, false,

true, false, false, true ,

true, true, true, true ,

false, false, true, true]

The correct answer would be 17.

Hint: Don't forget to check for bad values like null/undefined

Language: Python

Kata Level: 8

Solution:

def count\_sheeps(sheep):

a = 0

for temp in sheep:

if temp == True:

a += 1

return a

[On the Canadian Border (SQL for Beginners #2)](https://www.codewars.com/kata/590ba881fe13cfdcc20001b4)

### **Description:**

You are a border guard sitting on the Canadian border. You were given a list of travelers who have arrived at your gate today. You know that American, Mexican, and Canadian citizens don't need visas, so they can just continue their trips. You don't need to check their passports for visas! You only need to check the passports of citizens of all other countries!

Select names, and countries of origin of all the travelers, excluding anyone from Canada, Mexico, or The US.

travelers table schema

* name
* country

NOTE: The United States is written as 'USA' in the table.

NOTE: Your solution should use pure SQL. Ruby is used within the test cases just to validate your answer.

Language: SQL

Kata Level: 8

Solution:

SELECT

\*

FROM

TRAVELERS

WHERE

COUNTRY NOT IN ('Mexico', 'USA', 'Canada')--Your Code Here

[Finding Products Matching All Selected Tags](https://www.codewars.com/kata/67741444c77444b19e8b5223)

### **Description:**

Imagine you are managing an e-commerce platform. It offers a diverse range of products, each tagged with various attributes to help customers filter and find items that match their preferences. These tags could represent categories, features, styles, or any other relevant attributes.

You want to implement a feature that allows customers to filter products by selecting multiple tags. Specifically, when a customer selects several tags, the platform should display only those products that are associated with all the selected tags. This ensures that the search results precisely match the customer's combined tag preferences.

We have a product\_tags table:

* product\_id (int): Unique identifier for each product
* tag (varchar): Tag associated with the product

The table may contain duplicate rows where the same product is associated with the same tag multiple times.

For our task, we want to find products that are tagged with both Electronics and Gadgets. The query should return product\_id values in desc order for products that are associated with both of these tags.

for this sample data:

| product\_id | tag |

+------------+-------------+

| 101 | Electronics |

| 101 | Gadgets |

| 102 | Home |

| 103 | Electronics |

| 103 | Accessories |

| 104 | Kitchen |

| 105 | Electronics |

| 105 | Gadgets |

| 105 | Accessories |

| 106 | Gadgets |

| 106 | Accessories |

the expected result is the following:

| product\_id |

+------------+

| 105 |

| 101 |

Language: SQL

Kata Level: 7

Solution:

SELECT product\_id FROM product\_tags WHERE tag IN ('Electronics')

INTERSECT

SELECT product\_id from product\_tags WHERE tag IN ('Gadgets')

ORDER BY product\_id DESC

[Tip Calculator](https://www.codewars.com/kata/56598d8076ee7a0759000087)

### **Description:**

Complete the function, which calculates how much you need to tip based on the total amount of the bill and the service.

You need to consider the following ratings:

* Terrible: tip 0%
* Poor: tip 5%
* Good: tip 10%
* Great: tip 15%
* Excellent: tip 20%

The rating is case insensitive (so "great" = "GREAT"). If an unrecognised rating is received, then you need to return:

* "Rating not recognised" in Javascript, Python and Ruby...
* ...or null in Java
* ...or -1 in C#

Because you're a nice person, you always round up the tip, regardless of the service.

Language: Python

Kata Level: 8

Solution:

import math

def calculate\_tip(amount, rating):

rating = rating.lower()

if rating == "terrible":

return math.ceil(amount \* 0)

elif rating == "poor":

return math.ceil(amount \* 0.05)

elif rating == "good":

return math.ceil(amount \* 0.1)

elif rating == "great":

return math.ceil(amount \* 0.15)

elif rating == "excellent":

return math.ceil(amount \* 0.2)

else:

return "Rating not recognised"