Congratulations! You passed!

TO PASS 80% or higher

Keep Learning

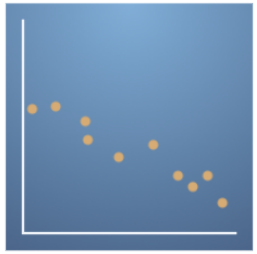
GRADE 100%

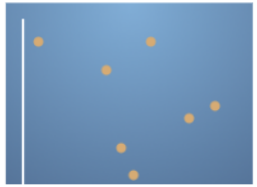
Linear regression

TOTAL POINTS 6

1. In the previous video you saw how to fit a line $y = mx + c$ to linear data. In this quiz you will practise identifying data that is appropriate for linear regression, and initialise some fits yourself. 1 / 1 point

   Which of the following figures looks like it contains sensible data for a linear fit?





2. Which of the following figures looks like it contains sensible data for a linear fit?

4. Fitting by eye is not that easy even for small sets of data. Let's make some linear fits using the maths discussed in the previous video. 1 / 1 point

   Use these equations to calculate the m and c which minimise χ^2 for the 5 data points given above and select the correct values below:

   The calculation for $\bar{x}$, *xbar*, and $\bar{y}$, *ybar*, is already given. As you can see *numpy* has been imported as *np*.

   Use the above code block to test your code. When you are confident that you have correctly defined the function, put it into the next codeblock and run it, being careful not to include *line()* in your answer.

```
4  regression = stats.linregress(xdat, ydat)
5
6  line(regression)
```

Reset

Correct

Well done,
you have assigned 'regression' correctly