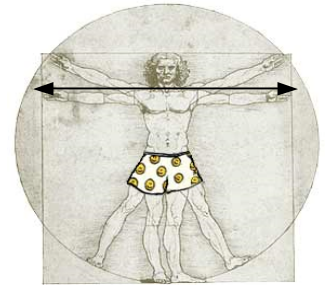


# Are you a masterpiece?

Leonardo da Vinci (1452-1519) was a scientist and an artist. In 1492 he drew the picture on the right. Can you see how the man is standing in a circle and a square? Leonardo thought that the span of someone's arms is equal to their height. Why do you think he was interested in working out body proportions?

Do you think Leonardo's theories still work today?



## Problem



**Is Leonardo's theory that a person's height is equal to their arm span true for New Zealand students in 2005?**

## Plan



What do I predict the ratio for myself to be?

My height is about \_\_\_\_\_ My arm span is about \_\_\_\_\_

My predicted height to arm span ratio is: \_\_\_\_\_

## Data



Enter your data and data from nine of your classmates here. Who will you choose? Why?

Name	Gender	Arm span	Height	Body Ratio
Me				
Student A				
Student B				
Student C				
Student D				
Student E				
Student F				
Student G				
Student H				
Student I				

## Analysis



1. Have a look at the table of data. What do you notice? \_\_\_\_\_
2. Name the people in your list that are a 'masterpiece'? \_\_\_\_\_
3. How do you know they are a 'masterpiece'? \_\_\_\_\_
4. Graph the information from your table. You might have to draw a few graphs to show all the information. On each of the graphs, indicate:
  - Where you are
  - Where your prediction is
5. Make a comment about your prediction: \_\_\_\_\_
6. Look at the graphs you have drawn. Make a list of the words that you could use to describe the shapes, range and spread of the information: \_\_\_\_\_
7. Not everybody has an Arm span/ Height ratio equal to 1. Why do you think this is? \_\_\_\_\_

## Conclusion



You are now ready to answer the question we asked at the beginning of the worksheet. Remember to give reasons based on what you found out in your investigation.

**Is Leonardo's theory that a person's height is equal to their arm span true for New Zealand students in 2005?**

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Finish the sentence: I notice \_\_\_\_\_

Finish the sentence: I wonder \_\_\_\_\_

Who would be interested in your conclusion?