

EXERCISE: DIRECT PROPORTIONALITY

Consider many different iron objects.

In the table aside you can see their volume and their mass.

Volume
(dm³) Mass
(kg)

0	0
1	8
3	26
4	33
5	39
7	56
8	61

TASK 1.

Complete the following table.

Volume ₃ (dm ³)	Mass (kg)	Ratio = Mass/Volume (kg/dm ³)	Average ratio ₃ (kg/dm ³)	Error on the average ratio (kg/dm ³)
0	0	—		
1	8			
3	26			
4	33			
5	39			
7	56			
8	61			

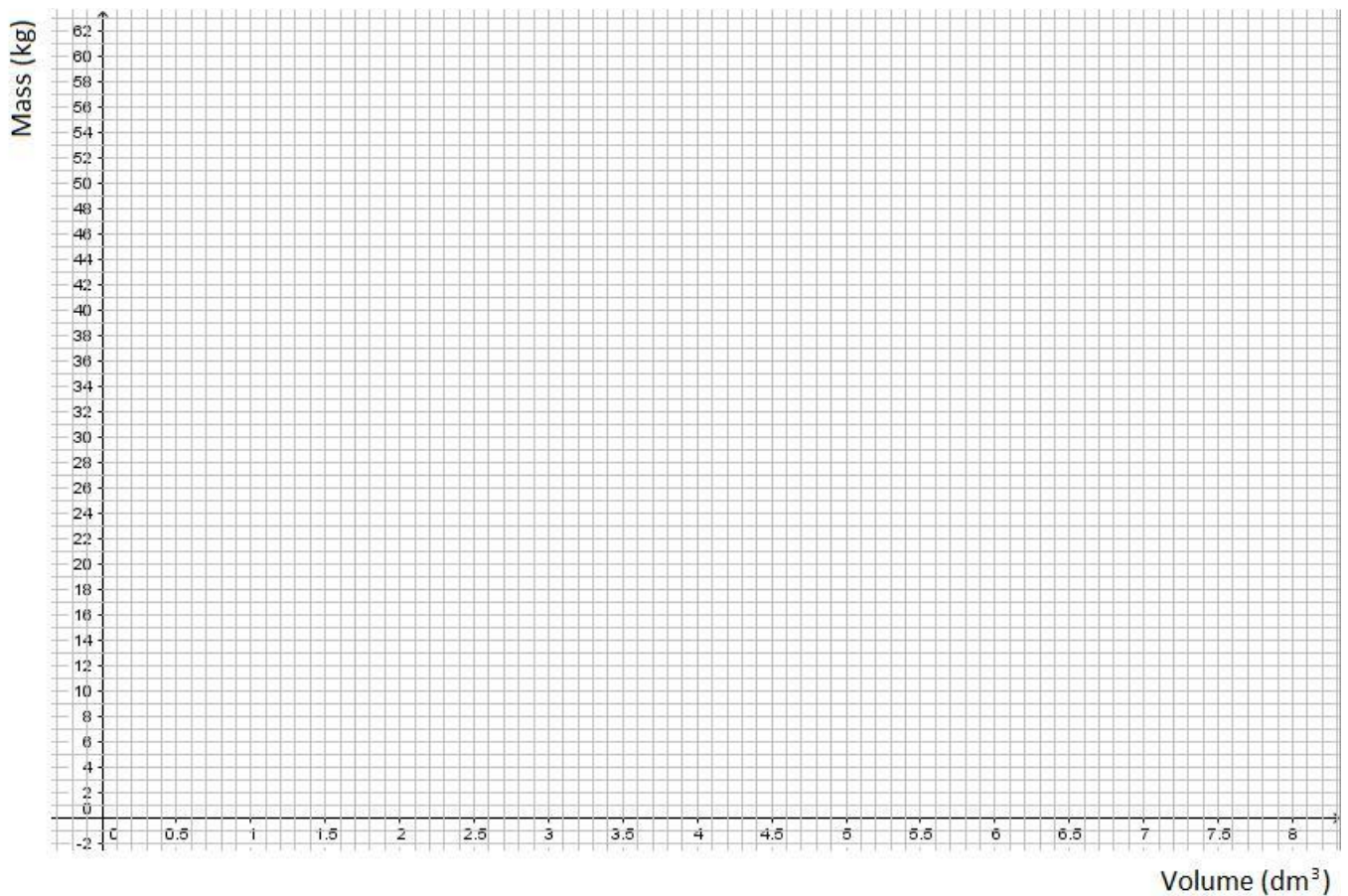
According to the table, can you say that mass and volume are directly proportional?

Why (not)?

What is the value of the proportionality constant you found from the table?

TASK 2.

Draw a graph with the data in the original table.



What kind of graph did you obtain?

What is the proportionality constant you can find from the graph? Make clear every step you take to find it.
