

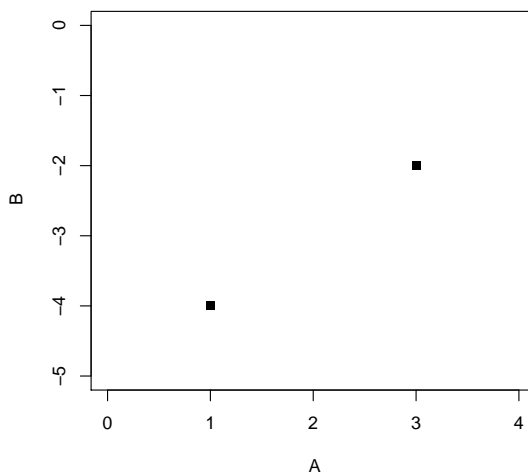
**Activity 10.13**

[V/V110c]

Here is a very small data set with  $N = 2$  and two variables:

B	A
-2	3
-4	1

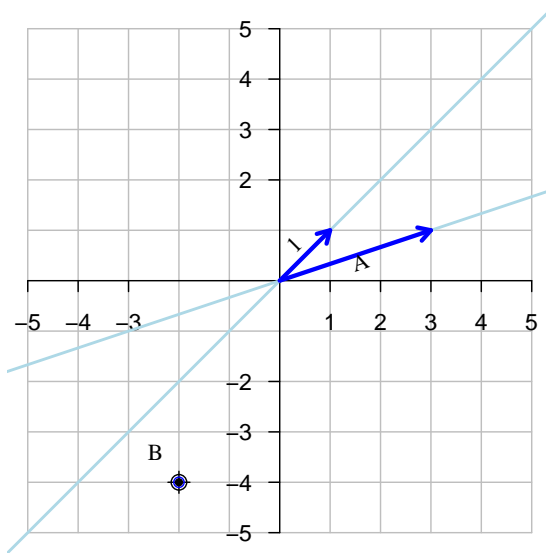
You are going to fit a couple of simple models by eye. Here is a scatter plot.



Using the scatter plot, fit the following models and report the coefficients and the fitted model values:

- $B \sim 1$
- $B \sim A - 1$  Note that this line must go through the point  $(0, 0)$ .
- $B \sim A + 1$

Now fit the same models using vectors in variable space. For each model, project the goal point  $B$  onto the appropriate vector or vectors. Read off the fitted model values and estimate the model coefficient(s).



Finally, fit the models again, using R.