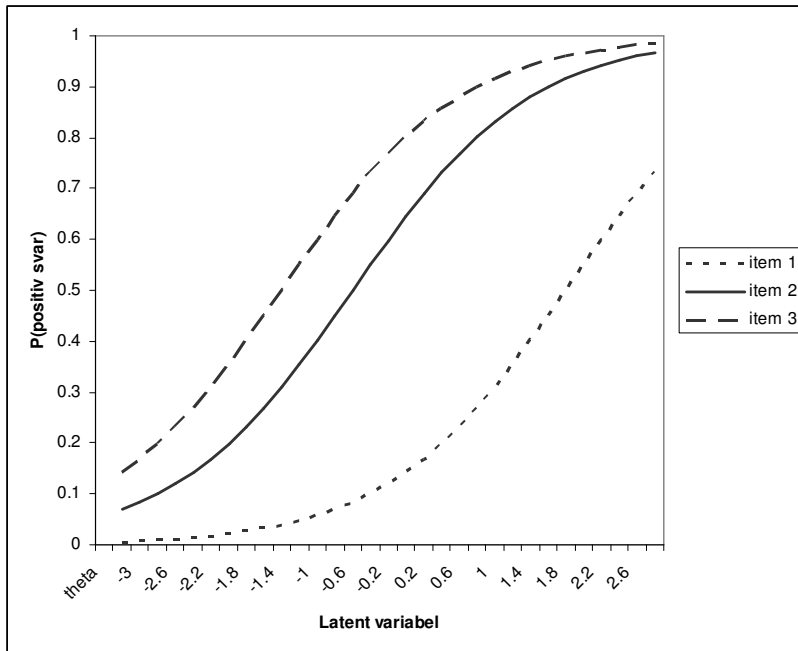


# Exercises IRT

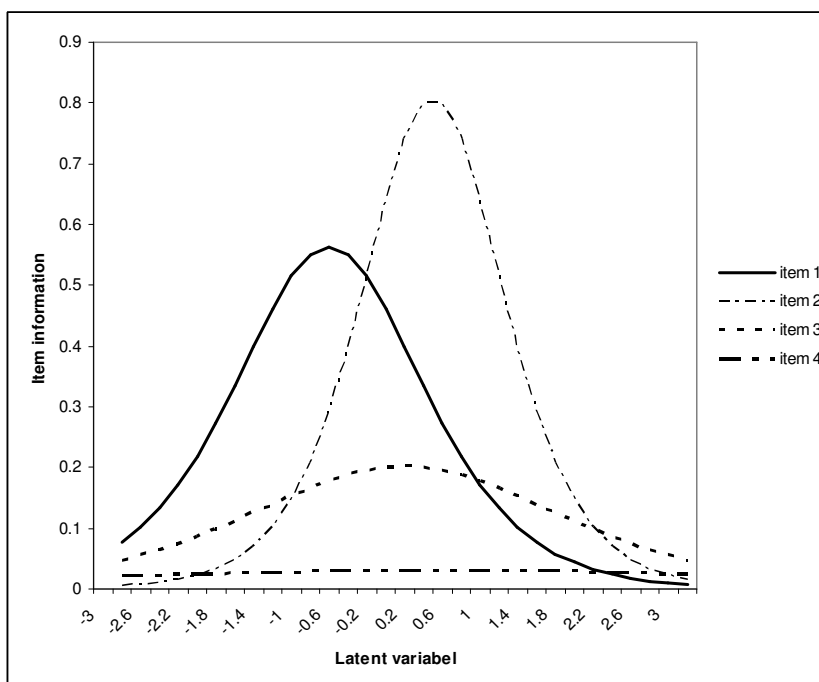
## Exercise 1.

Read the parameter for item difficulty/item location from the graph below, which shows three items from a one parameter logistic model (Rasch model)



## Exercise 2.

The graph below shows the item information from four items.



These four items relate to reading ability. Consider you were a test developer and your agenda were to find one item to be used in a test directed toward persons with reading problems. Which item for these four would you choose and why?

On the other hand if you should make an one-item test to differentiate between competent readers, which of the four would you prefer and why?

Exercise 3.

### Figur Item information

Item	Latent variabel						
	-3	-2	-1	0	1	2	3
1	0.01	0.25	0.50	0.70	0.83	0.65	0.40
2	0.05	0.35	0.70	0.85	0.70	0.35	0.05
3	0.10	0.30	0.40	0.45	0.10	0.05	0.01
4	0.10	0.30	0.40	0.45	0.40	0.30	0.10
5	0.40	0.65	0.83	0.70	0.50	0.25	0.01

A test consists of the five items in the table above. The table presents item information for each item at seven different values for the latent trait.

Calculate the test information at the seven values of the latent trait.

If you were to reduce this test to a four item test based in item information, which one would you omit?