

This is a straightforward translation of the Dutch newspaper article (only the questions)

10 Multiple Choice Questions:

1. If you flip a coin twice, what is the probability of twice Heads?
 - a. 25%
 - b. 50%
 - c. **Something else**

2. A real estate agency informs customers that the average value of houses in a specific quarter of the town is € 400 000. We know that in the outskirts of this quarter some luxurious villas (worth several millions). What does that tell us about the median, the value such that 50% of the houses are worth more and 50% less.
 - a. **Below € 400 000**
 - b. **Exactly € 400 000**
 - c. **Above € 400 000**

3. A vase contains 200 red and 800 black marbles. Repeatedly a marble is chosen at random, without replacement. What is the probability that the last marble is red?
 - a. 1/20
 - b. 1/5
 - c. 1/10

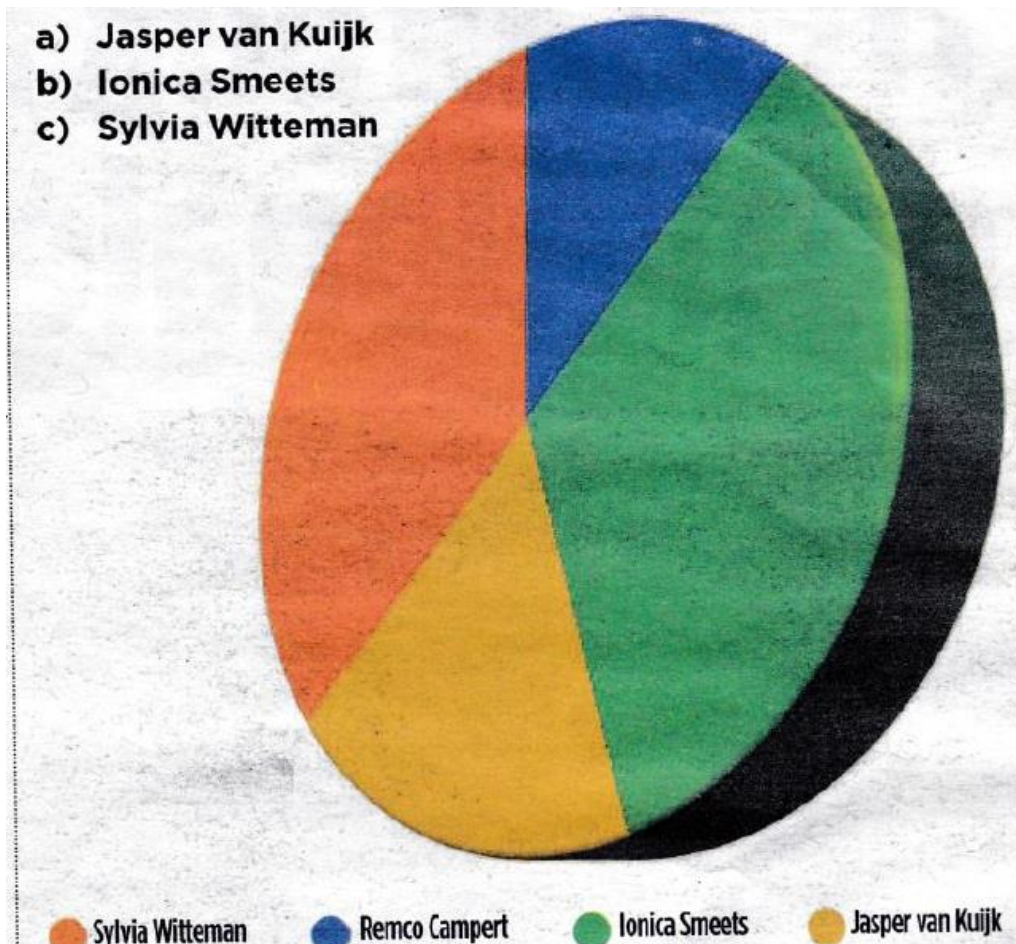
4. How many chickens are killed for meat consumption in The Netherlands in February 2014, according to the Dutch “Centraal Bureau voor Statistiek” (data bank Statline)?
 - a. 143 500
 - b. 2 672 300
 - c. 41 977 400

5. What is the probability of the result “4” if we roll a (fair) dice.
 - a. $\frac{1}{2}$
 - b. $\frac{1}{4}$
 - c. 1/6

6. One out of ten thousand people has a certain disease. The test for this disease is 99% accurate: that means that if someone has the disease the test will be positive in 99% of these cases. And 99% of the people who do not have the disease, will test negative. Suppose you have a positive test result, what is the probability that you have the disease?
 - a. 1%
 - b. 50%
 - c. 99%

7. Results of statistical survey are called “significant” if the p-value is less than 5%. What does that mean?
 - a. **The probability that the observed effect is coincidence, is less than 5%**

- b. If there is no effect, then the probability that by chance such a result (or stronger) is observed, is less than 5%.
 - c. If you repeat the survey, the probability of not obtaining the same result is less than 5%.
8. The Supermarket chain AH has a space-slides action, for free if you buy at the store. The aim is to gather all 160 different images. Assume that you are given a random a space slides each time you buy something. How many space slide should you gather on average to obtain all different space slides?
- a. 320
 - b. 685
 - c. 905
9. Who is your favourite columnist of The Volkskrant according the following pie diagram?



10. What is your estimate of the number of readers of De Volkskrant who gave the correct answer to all of the first 9 questions?
Answer: