

Percentages

Adopted from "Math Circle for grades 6 and 7" by A. Spivak (in Russian)

April 10, 2011

1. At first, the price of gas was increased 100%. Then, it dropped by 50%. How did the price of gas change?
2. Last year, the price of milk increased by 20% compared to what it was two years ago. This year, the price of milk dropped 20% compared to what it was last year. Does the milk cost more now or two years ago?
3. Compare: 15.43% of 5 versus 5% of 15.43?

8. The price of cheese dropped by 20%. How much more cheese (in percentage terms) can you now buy for the same amount of money?
9. The water of the Pacific Ocean contains 3.5% salt (by weight). How much fresh water do you need to add to 40 kg of water from the Pacific Ocean to get a mixture containing 0.5% salt?
10. You started with the number 51.2, increased it three times by the same percentage. Then, you decreased it three times by the same percentage and got 21.6. What was that percentage?