

## Problem Solving – Word problems

Solve the problems and identify the strategy (strategies) you used to solve them.

1. *"If a brick weighs 1 kilogram and half a brick, how many kilograms does the brick weigh?"*
2. A biologist notices that a certain bacterium splits into 2 separate bacteria once every minute. In 24 hours bacteria filled up the whole test tube. When was the test tube half full?
3. A bottle with cap costs one dollar and ten cents. The bottle costs one dollar more than the cap. How much does the cap cost?
4. What day of the week was yesterday if five days before the day after tomorrow was Wednesday?
5. Emily spent two thirds of her money. Then she lost two thirds of the money that was left. Four dollars remained. How much money did Emily have to begin with?
6. Sarah went to a store, spent half of her money, and then spent \$10 more. She went to a second store, spent half of her remaining money, and then spent \$10 more. Then she had no money left. How much money did she have in the beginning when she went to the first store?
7. Mary uses fingers on one hand to count: 1 (thumb), 2 (index finger), 3 (middle finger), 4 (ring finger), 5 (little finger) and then she goes back: 6 (ring finger), 7 (middle finger), 8 (index finger), 9 (thumb) and forth: 10 (index finger), 11 (middle finger) etc. On which finger will the number 2019 fall?
8. Jimmy lies on Fridays, Saturdays and Sundays. Other days he tells the truth. Freddy lies on Tuesdays, Wednesdays and Thursdays; otherwise he tells the truth. What day is today if they both say "I lied yesterday"?
9. John enters a shop and asks the proprietor: "If you give me the same amount of money I have in my pocket right now, I'll spend \$100 in your shop." The proprietor agrees and John spends \$100. John then enters the second shop and asks the proprietor: "If you give me the same amount of money I have in my pocket right now, I'll spend \$100 in your shop." The proprietor agrees and John spends \$100. The same situation repeats in the third shop. After John walks out of the third shop, he has no money left. How much money did he have to start with?