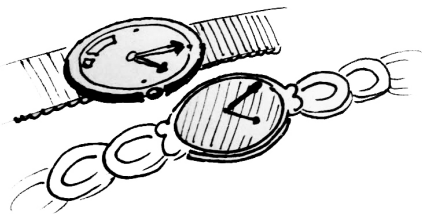
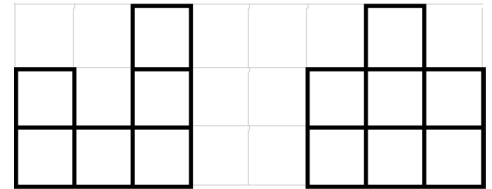


1. If  $a * b = 10 \times (b - a)$ , what is the value of  $(1 * 2) * (3 * 4) * (5 * 6)$ ?



2. Jack's watch runs 3 minutes fast per hour, and John's watch runs 4 minutes late per hour. At noon, both kids set their watches according to the school clock (which is accurate) and agree to meet at the skating rink at half past three. How many minutes will Jack wait for John, if each comes to the skating rink exactly at 3:30 PM according to his watch?

3. In the drawing class, the teacher created a figure from several identical cubes, and Frank and Gary drew it from two different points of view (see picture). How many cubes could there be in this figure? Specify the largest and smallest possible values.



4. If you increase the integer by 1, its square will decrease by 2017. Find this integer.



5. A family approaches a bridge at night. The father can cross it in 1 minute, the mother in 2 minutes, the child in 5 minutes, and the grandmother in 10 minutes. The bridge can only bear the weight of two people at a time. They have one flashlight, and they are not allowed to go across the bridge without the flashlight or light the way from a distance. If two people are crossing the bridge they move with the slowest of their two speeds. How can they cross the bridge in the shortest time? Indicate this time and their plan of action.

6. Nathan is creating a password for his smartphone. The password has 4 digits. Nathan does not like digits 6 and 9, so he does not use them. In addition, he wants to have at least two identical digits in the password. How many ways can Nathan do this?

