Problems

1. As an aid effort, food and drink is distributed equally to each person in a refugee camp. If the total ration for a day is 136 apples, 204 oat biscuits and 340 small bottles of water, how many refugees are there in the camp?

2. 294 blue smarties, 252 pink smarties and 210 yellow smarties are shared equally among some students with none left over. What is the largest possible number of students?

3. In a number of identical boxes of chocolates there are 90 dark ginger, 198 white and 126 hazelnut. What is the largest possible number of boxes of chocolates?

4. A person has a rectangular plot of land measuring 8.4 m by 5.6 m. To survey the numbers of dandelions they want to divide it equally into the minimum number of square plots. What is the size of each square plot and how many such squares will there be?

5. Lenny wants to cut identical squares, as big as he can, from a piece of paper measuring 168 mm by 196 mm. What is the length of each square?

6. On a school trip, 56 girls and 91 boys go to South Korea. They were divided into as many groups as possible so that there were equal numbers of girls and boys in each group. How many in each group?

7. A small bus company has 2 services that both start at 9am. Bus number 801 leaves at 16-min intervals and bus 304 leaves at 20-min intervals. How many times do both buses leave together between 9 am to 12 noon inclusive?

8.
Franz, Gertrude and Hugo are grasshoppers, jumping up a large flight of stairs:
• Franz jumps 2 steps at a time
• Gertrude 3 steps at time
• Hugo 4 steps at a time
If they all started at the bottom (at the same time), on which step will they all land together for the first time?

9.
Hubert helps wash up at a vegetarian restaurant every 9 days while his sister helps every 12 days. How often do they both help out?

10.
For sports activities, a group of students can be put into smaller groups of 6, 15 and 18 without anyone being left out. What is the smallest possible number of students?

11.
Jessica has a stall at the market every 64 days. Carlo has a stall at the same market every 72 days. When they are at the market on the same day they meet up for a coffee. They meet each other one day. How many more days until they meet for a coffee again?

12.
Three planks are to be cut into pieces all of the same size. The planks have lengths 84 cm, 156 cm and 180 cm. What is the greatest possible length of each piece?

13.
The front wheels of a toy truck are 9 cm in circumference. The back wheels are 12 cm in circumference. If the truck travels down a long slope, in a straight line and without slipping, how far will the truck have travelled when the front wheels have made 10 more revolutions than the back wheels?

answers

1) 68 refugees
2) 42 students
3) 18 boxes
4) 2.8m by 2.8m and 6 of them
5) 28 mm by 28 mm
6) 7 of each
7) three: 9:00, 10:20 and 11:40
8) 12th step
9) every 36 days
10) 90 students
11) 576 days!
12) 12 cm each
13) $12n = 9(n + 10)$, n = 30 cm