DIVISIBILITY WORD PROBLEMS

1. John, Louise and Rita regularly go swimming. John goes every 2 days, Louise goes every 3 days and Rita goes every 5 days. They all went swimming together on Friday 1st June. When will they go swimming together?

2. A school ran 3 evening classes: Conversational French, Cake making and Ceramics. The Conversational French class had 29 students, Cake Making had 27 students and Ceramics had 23. For which classes did the teacher have difficulty dividing the students into equal groups?

3. A beacon flashes its light every 12 seconds, another every 18 seconds and a third every minute. At 6.30 pm the three flash simultaneously. Find out the times when the three flash simultaneously again in the next five minutes.

4. Forty-eight students went to the 'Fantastic cinema Festival’. Their teacher wants to separate them into equal groups. Suggest five different ways that the teacher can do it.

5. A businessman goes to Chicago every 18 days for one day and another businessman every 24 days, also for only one day. Today, both men are in Chicago. Within how many days will the two business men be in Chicago again at the same time?

6. There are 3 differently sized casks of wine in a cellar whose capacities are: 250 liters, 360 litres, and 540 litres. The owner of the cellar wants to package the wine in barrels with an equal amount of wine in each one. Calculate the maximum capacities of these barrels so that the owner can package equal amounts of wine in each cask, and determine the quantity of barrels he will need.

7. The floor of a room that needs to be tiled is 5 m long and 3 m wide. Determine the ideal size of the tiles and the number of the tiles needed, such that the number of tiles that are placed is minimal and none of them are to be cut. Keep in mind that all tiles are to be the same size.

8. A trader wants to put 12,028 apples and 12,772 oranges into boxes. Each box is to contain an equal number of apples and an equal number of oranges and also the
greatest number of each. Find the ideal number of oranges and apples for each box and the number of boxes needed.

9. What is the size of the largest possible square tile that can fit an in a room 8 m long and 6.4 meters wide without being cut? How many tiles are needed?

10. Cameron is making bead necklaces. He has 90 green beads and 100 blue beads. What is the greatest number of identical necklaces he can make if he wants to use all of the beads?

11. You are 126 students in your school. Your Music teacher wants to split you up into equal groups for playing instruments. Suggest three different ways that your teacher can split you up.