Week one revision questions 25/05/2026

1. A factory produces juice packs in boxes of 48 and 72. The manager wants to arrange them into the largest equal groups without any remainder. How many juice packs should be in each group?
2. Three school bells ring after every 24 minutes, 36 minutes, and 54 minutes respectively. If they ring together now, after how many minutes will they ring together again?
3. A farmer has 84 mango trees and 126 orange trees. He wants to plant them in equal rows with the greatest possible number of trees per row. How many trees will be in each row?
4. Water tanks are filled every 45 minutes, 60 minutes, and 75 minutes respectively. If all tanks are filled together at 8:00 a.m., after how long will they next be filled together?
5. A school has 96 boys and 144 girls participating in athletics. The sports teacher wants to divide them into the greatest possible equal teams such that each team has the same number of boys and the same number of girls.
   a) Determine the greatest number of teams that can be formed.
   b) Find the number of boys and girls in each team.

6. Three traffic lights change after every 24 seconds, 36 seconds, and 48 seconds respectively. They all turn green together at exactly 7:00 a.m.
   Tasks
   a) After how many seconds will they next turn green together?
   b) How many times will the first traffic light change before they all turn green together again?
   c) Predict the exact time when they will next turn green together.
8. A factory has 180 bottles of soda and 252 bottles of juice. The manager wants to pack them into identical boxes without mixing the drinks and without leaving any bottle unpacked.
   Tasks
   a) What is the greatest number of boxes that can be made?
   b) How many soda bottles and juice bottles will be in each box?

9. Three buses leave Kampala for Mbarara every 40 minutes, 60 minutes, and 72 minutes respectively. All buses leave together at 6:00 a.m.

a) After how long will the buses leave together again?
b) At what exact time will this happen?
c) If the first bus makes UGX 120,000 per trip, estimate how much it earns before all buses leave together again

10. A farmer has two pieces of land measuring 84 m and 126 m long. He wants to divide each into square plots of equal and greatest possible size.
    Task
    a) Determine the side length of each square plot.
    b) Calculate the number of plots formed from each piece of land.
    c) Explain why choosing a smaller square size would not be most efficient.

END