

Practice Questions

GCD (Greatest Common Divisor)

Medium Level



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1. A gardener has 72 meters, 84 meters, and 96 meters of rope. He wants to cut them into the longest possible equal-length pieces without any leftovers. What should be the length of each piece?
2. A factory packs 120 chocolate bars, 180 chocolate truffles, and 240 chocolate cookies. They want to package them in boxes so each box has the same number of each item with no leftovers. What is the maximum number of chocolates that can go in each box?
3. A teacher has 84 science stickers, 108 math stickers, and 132 history stickers. She wants to make gift packs with the same number of each type of sticker without any leftovers. What is the greatest number of packs she can make?
4. A school has 96 chairs and 128 desks that need to be arranged in rows, with each row having the same number of chairs and desks. What is the maximum number of rows that can be made?
5. A vendor has 225 watermelons and 315 cantaloupes. He wants to arrange them into identical groups, with each group having the same number of watermelons and the same number of cantaloupes. What is the maximum number of watermelons and cantaloupes in each group?
6. A school has 54 boys and 81 girls for activity and wants to create the largest possible equal groups with both boys and girls in each group. What is the maximum number of students in each group?
7. A party organizer has 126 pens, 189 pencils, and 252 erasers to put into identical gift bags with the same number of each item in each bag. What is the maximum number of bags she can make?
8. A chef has 144 grams of sugar, 180 grams of flour, and 252 grams of butter. He wants to divide these ingredients into containers with the same amount in each container without any leftovers. What is the maximum weight each container can hold?

Answer Key

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1. **2 meters**
2. **60 chocolates per box**
3. **12 packs**
4. **32 rows**
5. **45 per group**
6. **27 students per group**
7. **63 bags**
8. **36 grams per container**