## Find GCF using Euclidean Algorithm Worksheets

1. Juanita and Samuel are planning a pizza party. They order a rectangular pizza that measures 21 inches by 36 inches. They tell the pizza maker not to cut it because they want to cut it themselves
a. All pieces of pizza must be square with none left over. What is the side length of the largest square pieces into which Juanita and Samuel can cut the pizza?
b. How many pieces of this size can be cut?
2. Shelly and Mickelle are making a quilt. They have a piece of fabric that measures 48 inches by 168 inches.
a. All pieces of fabric must be square with none left over. What is the side length of the largest square pieces into which Shelly and Mickelle can cut the fabric?
b. How many pieces of this size can Shelly and Mickelle cut?

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1. Juanita and Samuel are planning a pizza party. They order a rectangular pizza that measures 21 inches by 36 inches. They tell the pizza maker not to cut it because they want to cut it themselves
a. All pieces of pizza must be square with none left over. What is the side length of the largest square pieces into which Juanita and Samuel can cut the pizza?

The GCF of 21 and 36 is 3 . They can cut the pizza into 3 inch by 3 inch squares.
b. How many pieces of this size can be cut?

$$
\begin{aligned}
& 7 \times 12=84 \\
& \text { Juanita and Samuel can cut } 84 \text { pieces. }
\end{aligned}
$$

2. Shelly and Mickelle are making a quilt. They have a piece of fabric that measures 48 inches by 168 inches.
a. All pieces of fabric must be square with none left over. What is the side length of the largest square pieces into which Shelly and Mickelle can cut the fabric?

The GCF of 48 and 168 is 24.
b. How many pieces of this size can Shelly and Mickelle cut?
$2 \times 7=14$
They can cut 14 pieces.

