

GCF Word Problems - Notes

Bonny has 24 wood beads and 30 glass beads. She wants each necklace she makes to have the same number of wood beads and the same number of glass beads. What is the greatest number of necklaces she can make if all the beads are used?

GCF

6 necklaces
4 wood beads
5 glass beads

$$\begin{array}{r} \textcircled{6} \overline{24 \mid 30} \\ 4 \quad 5 \end{array}$$

Mike is setting up fish tanks at the pet store. He has 6 angel fish, 12 tiger barbs, and 15 guppies. If he wants to have the same number of each kind of fish in every tank, what is the greatest number of tanks he can set up?

GCF

3 tanks
2 angel
4 tiger
5 guppies

$$\begin{array}{r} \textcircled{3} \overline{6 \mid 12 \mid 15} \\ 2 \quad 4 \quad 5 \end{array}$$

Mr. Thompson's sixth-grade class is competing in the school field day. There are 16 boys and 12 girls in his class. He divided the class into the greatest number of teams possible with the same number of boys on each team and the same number of girls on each team. How many teams were made if each person was on a team? How many girls were on each team? How many boys?

4 teams
3 girls, 4 boys

$$\begin{array}{r} \textcircled{4} \overline{16 \mid 12} \\ 4 \quad 3 \end{array}$$

Barbara is making candy bags for her birthday party. She has 24 lollipops, 12 candy bars, and 42 pieces of gum. She wants each bag to have the same number of each kind of candy. What is the greatest number of bags she can make if all the candy is used? How many pieces of each kind of candy will be in each bag?

6 bags

$$\begin{array}{r} \textcircled{6} \overline{12 \mid 24 \mid 42} \\ 2 \quad 4 \quad 7 \end{array}$$

4 lollipops
2 bars
7 gum

Find the GCF.

30, 80

10	30	80
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GCF=10 3 8

100, 75

25	100	75
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GCF=25 4 3

84, 96

3	84	96
2	28	32
2	14	16

GCF=12

$$\begin{array}{r} 2 \\ 3 \overline{) 84} \\ \underline{64} \\ 24 \end{array}$$

12, 24, 48

6	12	24	48
2	2	4	8

40, 80, 100

1	2	4
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GCF=12