Math 6 Unit 1 worksheet: Greatest common factor by listing

Name _____ Date _____ Period _____

1. Find the greatest common factor by listing factors.

(a) 14 and 21

(b) 30 and 42

(c) 32 and 56

(d) 45 and 63

(e) 28 and 45

(f) 19 and 57

(g) 50 and 75

(h) 36, 54 and 90

2. Simplify each fraction in one step by dividing the top and bottom by their GCF.

(a) $\frac{36}{90}$

(b) $\frac{56}{98}$

(c) $\frac{75}{120}$

3. Samir is filling party bags for a birthday. There are 55 glow sticks and 77 whistles. Every bag must hold exactly the same things, and nothing may be left over. What is the largest number of bags Samir can fill, and what goes in each bag?

4. The school choir has 10 sopranos and 25 altos. On stage, each row holds singers of one part only, and every row has the same number of singers. What is the most singers a row can hold, and how many rows will there be?

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5. Yuna is covering a banner 96 cm wide and 144 cm long with identical square felt patches, edge to edge, with no gaps, no overlaps and no patch cut.

(a) What is the largest side length the patches can have, in whole centimeters, and how many patches does she need?

(b) Her patches must fit through a frame no more than 20 cm wide, so each side can be at most 20 cm. What is the largest side she can use now, and how many patches does that take?

6. Two different whole numbers are each between 20 and 50, and their greatest common factor is 12. What could the two numbers be? Find every possible pair.

7. Isaac finds GCF(36, 48). He writes the factors of 36 as 1, 2, 3, 4, 6, 9, 18, 36, picks out the ones that also divide 48, and says the GCF is 6. What has gone wrong, and what is the correct GCF?

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