Math Ch 2.8 pt 2 Pennsylvania (Oct 20)
Pennsylvania Math work Name: _____
Prime factorization and GCF

1. Using a factor tree, find the prime factors of the below numbers. Express the numbers as a product of their prime factors. For example: 27 = 3 x 3 x 3

a)	12	d)	42	g)	16
b)	30	e)	20	h)	28
c)	75	f)	24	i)	86

2. Use a factor tree to find the greatest common factor for each pair of numbers.

a)	9 and 12	e)	30 and 28
b)	12 and 24	f)	28 and 26
c)	20 and 30	g)	48 and 72
d)	80 and 65	i)	100 and 68

3. Use a factor tree to find the greatest common factor for each set of 3 numbers.

a)	9, 12, and 15	b)	27, 30, 36	c)	20, 25, 42
e)	30, 42, 45	f)	99, 15, 27	g)	82, 40, 100

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To find the GCF:

Step 1: Make a factor tree for all numbers (prime factorization)

Step 2: Complete the prime phrasings (Example: 12 = 2 x 2 x 3)

Step 3: Circle the prime factors in common between the numbers.

Step 4: Express as GCF(a,b) = ___ x ___ = ___