

1.1 Greatest Common Factor (GCF)

Objective: To identify the Greatest Common Factor (GCF)

What is a fact or **factor** in real life?
- What **factors** contributed to the baseball team winning?

GCF – Greatest Common Factor – Largest number that divides evenly into a given set of numbers

To find the GCF:

- 1) Make a list of factors
- 2) Select common factors
- 3) The largest is the GCF

Example

Find all common factors of the two numbers

1) 24 and 60

24	
1	24
2	12
3	8
4	6

60	
1	60
2	30
3	20
4	15
5	12
6	10

Common Factors:

1, 2, 3, 4, 6, 12

Practice

Find the common factors of the two numbers

2) 18 and 40

18		40	
1	18	1	40
2	9	2	20
3	6	4	10
		5	8

Common Factors:

1, 2

3) 16 and 37

16		37	
1	16	1	37
2	8		
4	4		

Common Factors:

1

GCF

Find the GCF for the following numbers

4) 12 and 20

12		20	
1	12	1	20
2	6	2	10
3	4	4	5


GCF: 4

5) 16, 28, and 32

16		28		32	
1	16	1	28	1	32
2	8	2	14	2	16
4	4	4	7	4	8

GCF: 4

It must be in all factor towers!!



6) You are making a fruit basket and you have 32 apples, 28 oranges, and 16 pears. What is the greatest number of baskets that can be made so no fruit is left?

GCF: 4 (see example #5)

The clerk can make **4** fruit baskets with no fruit left over.

Each basket will contain 8 apples, 7 oranges, and 4 pears.