Unit 3
Polynomials

Lesson 1: Review

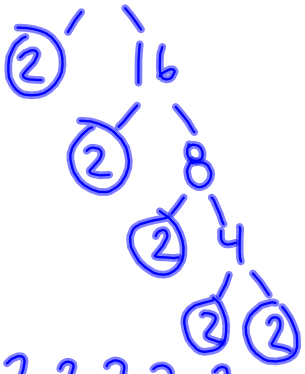
Before we start polynomials we need to review some previous knowledge.

Prime Factorization: When we write a set of prime numbers that multiply to give our original number.

$12 = 2 \times 2 \times 3$

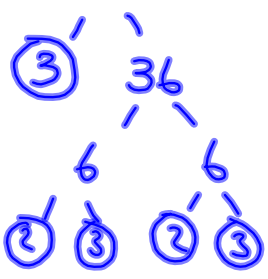
Write the prime factorization for each of the following

32



$32 = 2 \times 2 \times 2 \times 2 \times 2$

108



$108 = 2 \times 2 \times 3 \times 3 \times 3$

93

$93 = 3 \times 31$

Greatest Common Factor:

The highest number that divides exactly into 2 or more numbers.

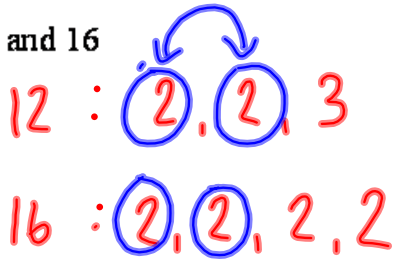
To find: → List our prime factors of both numbers

→ Circle factors that appear in both lists

→ Multiply

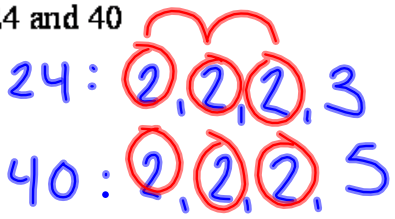
Determine the GCF for each set of numbers

a) 12 and 16



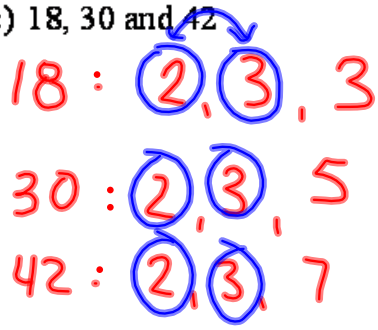
GCF = 2 × 2 = 4

b) 24 and 40



GCF = 2 × 2 × 2 = 8

c) 18, 30 and 42



GCF = 2 × 3 = 6

Lowest Common Multiple:

The smallest multiple that 2 numbers share.

To find: → List multiples of each #

→ Compare lists: Your LCM is the smallest multiple that appears in both

Determine the LCM for each set of numbers

a) 6 and 8

6: 6, 12, 18, (24), ...

8: 8, 16, (24), 32, ...

LCM = 24

b) 9 and 15

9: 9, 18, 27, 36, (45), 54, ...

15: 15, 30, (45), 60, ...

LCM = 45

c) 3, 4 and 5

3 × 4 × 5 = 60

3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39

4: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52

5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50

Eg A tile measures 16cm by 40cm. What is the smallest square that could be made if the tiles must all lay the same way and the tiles can not be cut?

Homework Pg 140 #3-6, 8-11, 15, 19