

## 3.2 Extension Lesson

### Factoring Expressions

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$$12x - 20 = 4(3x - 5)$$

## Factors

**12:** 1, 2, 3, 4, 6, 12

**15:** 1, 3, 5, 15

**36:** 1, 2, 3, 4, 6, 9, 12, 18, 36

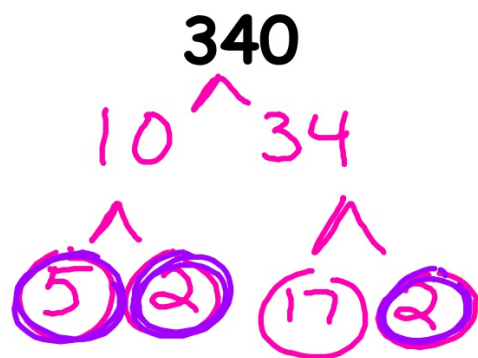
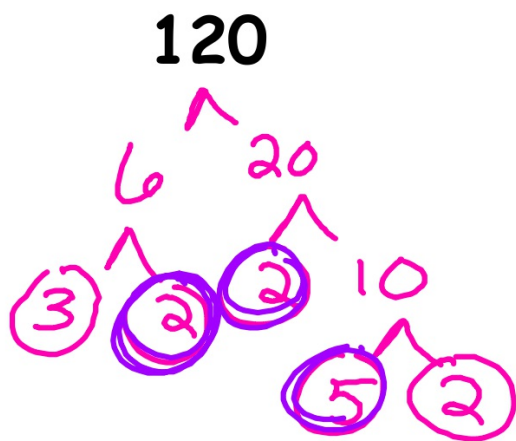
## Greatest Common Factors

10 and 25     5

18 and 36     18

120 and 340

## Prime Factorization (Factor Trees)



GCF  $2 \cdot 5 \cdot 2 = 20$

$$3(6x + 5)$$

$$\begin{array}{c} \uparrow \div 3 \quad \quad \div 3 \\ 18x + 15 \end{array}$$

? what can

18 & 15

be divided by?

③

$$10w + 25$$

$$\begin{array}{c} \div 5 \quad \quad \div 5 \end{array}$$

$$5(2w + 5)$$

$$30m + 18$$

$$\div 6 \quad \div 6$$

$$6(5m + 3)$$

$$20p + 16$$

$$4(5p + 4)$$

$$42k + 21$$

$\div 21$

$\div 21$

$$21(2k + 1)$$

$$18x - 24$$

$$6(3x - 4)$$

$$7(6k + 3)$$

$$7 \cdot 3(2k + 1)$$

$$21(2k + 1)$$