

Next topic: factoring.

WW

- (1) GCF (Greatest Common Factor)
- (2) factoring by grouping.

→ "GCF - Grouping"

#1)

$$35x + 42 = \boxed{7(5x + 6)}$$

factor this given
"linear expression"
(or a "linear function").

↑
precalculus
is all
about functions

Ex: $f(x) = 35x + 42$

$$\#2) \quad \underline{42x^5} + \underline{24x^4} = \boxed{6x^4(7x + 4)}$$

GCF: $6x^4$

$$\begin{array}{cc} 42 & 24 \\ \swarrow & \searrow \\ \underline{6} & \underline{7} \end{array} \quad \begin{array}{cc} & 24 \\ & \swarrow \\ \underline{6} & \underline{4} \end{array}$$

GCF of x^5, x^4
is x^4

$$\begin{array}{cc} & x^5 \\ \swarrow & \searrow \\ \underline{x^4} & \underline{x} \end{array}$$

$$\#3) \quad \underline{6xB} - \underline{10B} = \boxed{2B(3x - 5)}$$

*Check (by multiplying out)

$$\underline{2B(3x - 5)}$$

$$= \underline{2B(3x)} - 2B(5)$$

$$= 6Bx - 10B$$