

Algebra /

Factoring out a monomial from a polynomial: Univariate

$$\frac{16w^1}{4} + \frac{20w^2}{4}$$

$$4w(4 + 5w)$$

$$16 = 2 \cdot 2 \cdot 2 \cdot 2$$

$$\begin{array}{c} 16 \\ \swarrow \searrow \\ 8 \quad 2 \\ \swarrow \searrow \\ 4 \quad 2 \\ \swarrow \searrow \\ 2 \quad 2 \end{array}$$

GCF:
Numbers: Biggest # you can divide everything by

Variables: Smallest exponent

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

$$\begin{array}{c} 20 \\ \swarrow \searrow \\ 5 \quad 4 \\ \quad \swarrow \searrow \\ \quad 2 \quad 2 \end{array}$$

$2 \cdot 2 = 4$ GCF

$$6x^2 - 15x^3$$

$$3x^2(2 - 5x)$$

$$5x^2 - 25x + 50$$

$$5(x^2 - 5x + 10)$$