Factoring out the GCF of a Polynomial

1. Write the polynomial under the upside down division sign.
2. Find a number that divides evenly into each coefficient and constant.
3. Divide by this common factor and keep dividing by other factors until the only that number that divides into each term is 1.
4. Divide by any variables that each term has in common.
5. The GCF is found on the outside of the division sign.
6. Place parentheses around the terms at the bottom of the division sign.
7. Write your answer with the GCF outside of the parentheses.

$18y^2 - 15y^3 + 3y - 6$

$32x^4 - 8x^3 + 16x^2$

$45x^3y^2z^3 - xy^2z + 15x^2y^4 - 5xyz^2$

$82x^4y^2z^3 - 16x^3y^7z^{11} + 8x^2y^9z^2$