Practice Run

Express each of the following polynomials as a product of its factors.

1. $2x^2 + 20x + 42$	2. $18m^2 - 8$

Compare your answers.

Express the following polynomials as a product of its factors.

1. $2x^2 + 20x + 42$ (GCF and trinomial factoring) $2x^2 + 20x + 42 = 2(x^2 + 10x + 21)$ Find two values that have a product of 21 and sum to 10. The values are 3 and 7. $2(x^2 + 10x + 21) = 2(x + 3)(x + 7)$	2. $18m^2 - 8$ (GCF and difference of squares) GCF = 2 $\frac{18m^2}{2} - \frac{8}{2} = 9m^2 - 4$ $18m^2 - 8 = 2(9m^2 - 4)$ $9m^2 - 4$ (Difference of Squares) $\sqrt{9m^2} = 3m$ $\sqrt{4} = 2$ $9m^2 - 4 = (3m - 2)(3m + 2)$ $18m^2 - 8 = 2(3m + 2)(3m - 2)$