There are several ways to write the number 12 as a product of factors.  For example, 12 can be rewritten as 3 · 4, as 2 · 6, as 1 · 12, or as 2 · 2 · 3. While each of these products is accurate, only 2 · 2 · 3 is considered to be **factored completely**, since the factors are prime and cannot be factored themselves. During this lesson you will learn more about what it means for a quadratic expression to be factored completely.

**8-35.** Review what you have learned by factoring the following expressions, if possible. Use the Generic Rectangle/Diamond Problem process.











* An expression is considered **completely factored** if none of the factors can be factored any more.  Often it is easiest to remove common factors first, before factoring with a generic rectangle.
	1. Rewrite this expression 10*x*2 + 25*x* − 15 with the common factor factored out.  Then factor completely.

**8-38.** Factor each of the following expressions as completely as possible.

|  |  |  |
| --- | --- | --- |
| 3*x*3− 6*x*2 − 45*x* | 12*t*2 − 10*t* + 2 | 5*x*2 + 15*x* − 20 |