Intro to College Math: Chapter 6.4
Difference of Squares

* If you have a binomial (2 terms) with a subtraction sign between them, and both terms are perfect squares, then you have a special condition called the "difference of two squares".

ex.) x^2-49

* To factor the "the difference of two squares", you make 2 sets for ( ) ( ). put the square root of the first term in each set of ( ), followed by a negative in one ( ) and S positive in the other ( ). Then place the square root of the last term in each set of ( ).

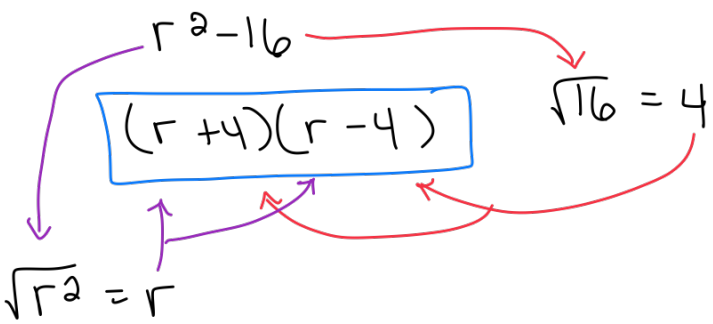
ex.) x^2-49

$(x+7)(x-7)$

ex.) $4y^2-49$

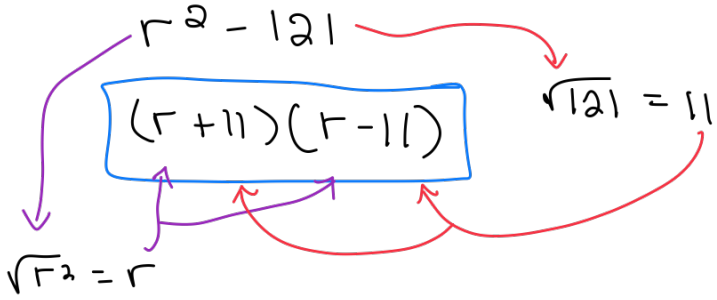
$(2y+7)(2y-7)$

1. Factor the following. r^2-16



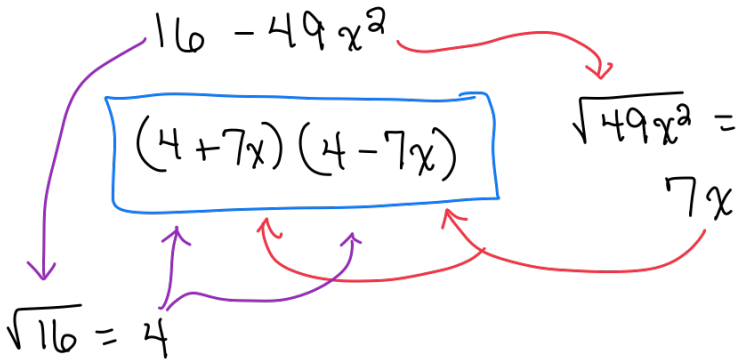
To Factor:
* Make 2 sets of ( ) ( ).
* Write the square root of the first term in each set of ( ).
* Then write a plus sign in one set of ( ) and a minus sign in the other set of ( ).
* Then write the square root of the 2nd term in each of the set of ( ).

2. Factor the following. r^2-121



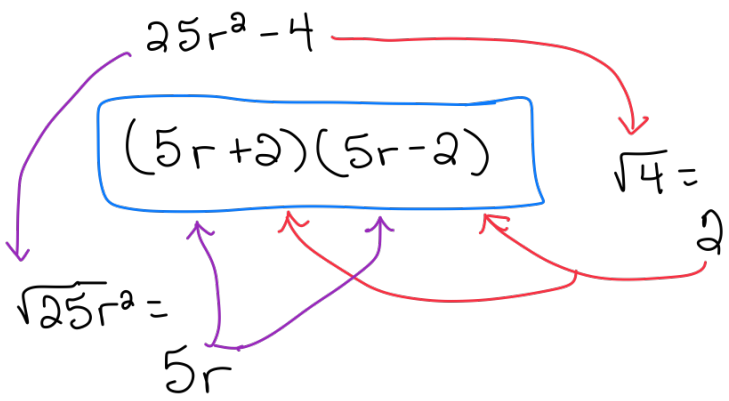
To Factor:
* Make 2 sets of ( ) ( ).
* Write the square root of the first term in each set of ( ).
* Then write a plus sign in one set of ( ) and a minus sign in the other set of ( ).
* Then write the square root of the 2nd term in each of the set of ( ).

3. Factor the following. $16 - 49x^2$



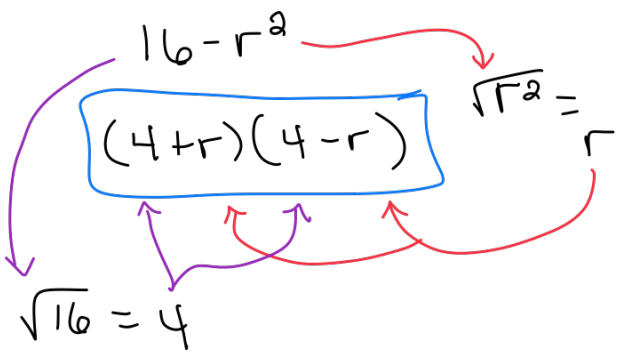
To Factor:
* Make 2 sets of ( ) ( ).
* Write the square root of the first term in each set of ( ).
* Then write a plus sign in one set of ( ) and a minus sign in the other set of ( ).
* Then write the square root of the 2nd term in each of the set of ( ).

4. Factor the following. $25r^2 - 4$



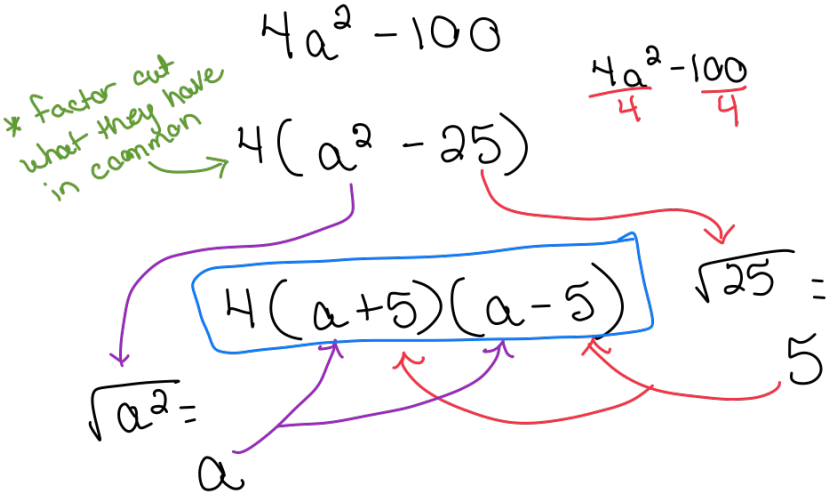
To Factor:
* Make 2 sets of ( ) ( ).
* Write the square root of the first term in each set of ( ).
* Then write a plus sign in one set of ( ) and a minus sign in the other set of ( ).
* Then write the square root of the 2nd term in each of the set of ( ).

5. Factor the following. $16 - r^2$



To Factor:
* Make 2 sets of ( ) ( ).
* Write the square root of the first term in each set of ( ).
* Then write a plus sign in one set of ( ) and a minus sign in the other set of ( ).
* Then write the square root of the 2nd term in each of the set of ( ).

6. Factor the following. $4a^2 - 100$



To Factor:
*First factor what the 2 terms have in common. Then divide each term by that number, and this will give you what to put in the ( ).
* Then make 2 sets of ( ) ( ).
* Write the square root of the first term in each set of ( ).
* Then write a plus sign in one set of ( ) and a minus sign in the other set of ( ).
* Then write the square root of the 2nd term in each of the set of ( ).