|  |  |
| --- | --- |
| **Factoring Trinomials:  (5.4)** | **Math 098** |

Let’s observe the patterns:

 

So to factor  we look for two numbers that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_.

 Factor

|  |  |
| --- | --- |
| 1.
 | 1.
 |

So if *c* is positive, then the two numbers have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_., and *b* determines it.

Factor

1. 
2. 

So if *c* is negative, then the two numbers have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and

*b* will determine which sign will be “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” (that is, have more absolute value or weight).

Important: When factoring always factor out the \_\_\_\_\_\_\_\_\_\_ first.

Factor completely

1. 
2. 

Factor completely

|  |  |
| --- | --- |
| 1.
 | 1.
 |
|  |  |

Solve

|  |  |
| --- | --- |
| 1.

 | 1.
 |
| 1. (graph (c.) when done to observe the roots/zeros. Use the window )
 |  |

Write a polynomial function  in standard form whose zeros are -3, 0, and 4.

Practice for you (factor or solve as appropriate)

|  |  |
| --- | --- |
| 1.

 | 1.
 |
| 1.

 | 1.
 |
| 1.
 | 1.
 |