Review of Factoring Practice Worksheet Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

**Factor when** $a=1$**.**

|  |  |  |
| --- | --- | --- |
| 1. $x^{2}+5x-36$
 | 1. $x^{2}+16x+39$
 | 1. $x^{2}-13x+42$
 |
| 1. $x^{2}+0x-100$
 | 1. $x^{2}-9x-22$
 | 1. $x^{2}+5x-126$
 |

**Factor when** $a\ne 1$**. (GCF)**

|  |  |  |
| --- | --- | --- |
| 1. $2x^{2}-8x-90$
 | 1. $3x^{2}-36x+96$
 | 1. $4x^{2}+0x-16$
 |
| 1. $7x^{2}-14x+7$
 | 1. $5x^{2}+35x+60$
 | 1. $2x^{2}-6x-140$
 |

Example of what to do when $a\ne 1$ and there isn’t a GCF.

$3x^{2}+14x-24$ $a\*c=-72-\rightarrow factors of 72:1\&72, 2\&36, 3\&24, 4\&18, 6\&12, 8\&9$

$3x^{2}+18x-4x-24$

-72

We need factors that add to 14

$$-4 \&18$$

$3x^{2}+18x-4x-24$

$3x(x+6)$ $-4(x+6)$

+14

$$(x+6)(3x-4)$$

**Factor when** $a\ne 1$**.**

|  |  |
| --- | --- |
| 1. $2x^{2}-13x-7$
 | 1. $3x^{2}+2x-8$
 |
| 1. $2x^{2}-11x+15$
 | 1. $7x^{2}-29x+4$
 |
| 1. $4x^{2}+5x+1$
 | 1. $6x^{2}+47x+35$
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