

## Homework Answers

1)  $(x + 3)(x + 4)$

10)  $(s - 6)(s + 9)$

2)  $(n + 5)(n + 4)$

11)  $(c - 5)(c + 9)$

3)  $(h + 6)(h + 3)$

12)  $(n - 4)(n + 7)$

4)  $(a + 6)(a + 4)$

13)  $(x + 10)(x - 3)$

5)  $(k + 5)(k + 1)$

14)  $(a + 6)(a - 1)$

6)  $(y + 1)^2$

15)  $(b + 7)(b - 9)$

7)  $(n - 3)(n + 6)$

16)  $(a - 3)(a + 1)$

8)  $(x + 4)(x - 2)$

17)  $(k - 16)(k + 4)$

9)  $(g - 2)(g + 5)$

18)  $(a - 18)(a + 4)$

Feb 13-7:18 AM

AC Method: Factoring when  $a \neq 1$ Review of Factor  
by Grouping:

$$(16y^3 - 8y^2 - 14y + 7)$$

$$8y^2(2y - 1) - 7(2y - 1)$$

$$(2y - 1)(8y^2 - 7)$$

Steps: CHECK FOR GCF FIRST

- 1) Factor out gcf of first two terms
- 2) Factor out gcf of last two terms
- 3) Factor out gcf binomial ()
- 4) Check to see if you need to factor further

Feb 24-11:24 AM

## Standard Form of a Trinomial $ax^2 + bx + c$

### AC Method: Trinomial to Binomial Factoring

&

Combination of Factor by Grouping

1) Multiply A and C

2) Make a table

AC =	B =
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3) Split middle term

4) Factor by grouping *4 term polynomial*

Feb 24-1:30 PM

Ex1)  $2x^2 + 9x - 5$

$$\begin{aligned} a &= 2 \\ b &= 9 \\ c &= -5 \end{aligned}$$

ac = -10	b = 9
10, -1	10, -1

Steps: CHECK FOR GCF FIRST

1) Multiply the "a" and "c" terms

2) Find two numbers that multiply to step 1 and add to the "b" term

3) Split the middle term based on the numbers found in step 2

Continue on as you did when you factored by grouping

4) Factor out gcf of first two terms

5) Factor out gcf of last two terms

6) Factor out common parenthesis

$$2x^2 + 9x - 5$$

$$(2x^2 + 10x) - 1(x - 5)$$

$$2x(x + 5) - 1(x + 5)$$

$$(2x - 1)(x + 5)$$

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1)  $3y^2 - 14y - 5$   $a=3$

$b=-14$

$c=-5$

$$\begin{array}{r|l} -15 & -14 \\ \hline -15 \cdot 1 & -15 + 1 \end{array}$$

$$(3y^2 - 15y) + (y - 5)$$

$$3y(y-5) + 1(y-5)$$

$$(3y+1)(y-5)$$

2)  $2x^2 + 13x - 7$

$a=2$

$b=13$

$c=-7$

$$\begin{array}{r|l} -14 & 13 \\ \hline -1 \cdot 14 & \end{array}$$

$$(2x^2 - 14x) + (13x - 7)$$

$$x(2x-1) + 7(2x-1)$$

$$(x+7)(2x-1)$$

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