Solving Equations by Factoring II

First multiply

Has to be zero

⑧ $(x+1)(x-5) = 16$

$x^2 - 4x - 5 - 16 = 0$ combine like terms

$x^2 - 4x - 21 = 0$ Factor

$(x-7)(x+3) = 0$

7 , -3

$x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

Not needed!

Name: _____

Solving Equations by Factoring Review, after Section 12

Solve the equations by factoring. Remember to factor out monomials first if possible.

1) $(x+8)(x-5)=0$

2) $(x-9)(x+6)(x-3)=0$

3) $2x(4x+5)(2x-6)=0$

4) $x^2-17x+30=0$

5) $x^2-81=0$

6) $x^2+3x-10=0$

7) $2x^2+11x+5=0$

8) $3x^2-8x-11=0$

9) $12x^2+8x+1=0$

10) $9x^2+45x=0$

11) $8x^2+2x-15=0$

12) $6x^2+42x+72=0$

13) $x^3+10x^2+25x=0$

14) $8y^2-98=0$

15) $2x^3-10x^2-48x=0$

16) $x^2-8x=-15$

17) $2x^2+12x=14$

18) $5x^2-50=45x$

19) $4x^2=52x$

20) $22x=-2x^2-48$

21) $18x^3-84x^2=30x$

22) $7x^2-10x=6x^2-21$

23) $(x+5)(x+2)=40$

24) $x(2x+4)(2x+9)=3x^3+11x^2$