

Practice Assignment

Name: Key  
Date: \_\_\_\_\_ Block: \_\_\_\_\_

Directions: Factor the following expressions.

1.  $x^2 - 49$

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

2.  $x^2 - 1$

$(x+1)(x-1)$

3.  $x^2 - 121$

$(x+11)(x-11)$

4.  $4x^2 - 9$

$(2x+3)(2x-3)$

5.  $16x^2 - 9$

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

6.  $49x^2 - 25$

$(7x+5)(7x-5)$

7.  $25x^2 - 36$

$(5x+6)(5x-6)$

8.  $4x^2 - 64$

$\rightarrow$  GCF of 4  
 $4(x^2 - 16)$  or  $(2x+8)(2x-8)$   
 $\boxed{4(x+4)(x-4)}$   $\underline{2}(x+4)\underline{2}(x-4)$   
 $\boxed{4(x+4)(x-4)}$

9.  $x^2 - 2x + 1$

$(x-1)(x-1)$

or

$(x-1)^2$

10.  $x^2 + 16x + 64$

$(x+8)(x+8)$

or

$(x+8)^2$

11.  $x^2 - 8x + 16$

$(x-4)(x-4)$

or

$(x-4)^2$

12.  $x^2 + 6x + 9$

$(x+3)(x+3)$

or

$(x+3)^2$

13.  $x^2 + 10x$

$x(x+10)$

14.  $x^2 - 9x$

$x(x-9)$

15.  $x^2 - 6x$

$x(x-6)$

16.  $3x^2 - 81x$

$3x(x-27)$

17.  $10x^2 + 40x$

$10x(x+4)$

18.  $8x^2 + 24x$

$8x(x+3)$

19.  $-2x^2 - 4x$

$-2x(x+2)$

20.  $-28x^2 - 14x$

$-14x(2x+1)$