

## Factoring Test REVIEW

Date \_\_\_\_\_ Period \_\_\_\_\_

**Factor each trinomial. Be sure to check for the GCF first.**

1)  $x^2 - 13x + 40$

2)  $n^2 - 9n + 20$

3)  $r^2 - 8r + 15$

4)  $m^2 + m - 12$

5)  $2x^2 - 6x - 56$

6)  $6m^2 - 54m - 60$

7)  $3x^2 + 15x - 108$

8)  $4n^2 - 52n + 120$

9)  $2r^2 - 7r - 49$

10)  $5p^2 + 7p - 6$

11)  $7x^2 - 3x - 4$

12)  $7p^2 + 47p - 72$

**Factor by grouping. Be sure to check for a GCF first.**

13)  $5k^3 - 15k^2 - 4k + 12$

14)  $a^3 + 4a^2 - 5a - 20$

15)  $84v^3 + 98v^2 - 60v - 70$

16)  $80r^3 + 64r^2 - 50r - 40$

**Factor by difference of squares. Be sure to check for GCF first.**

17)  $25x^2 - 16$

18)  $4x^2 - 25$

**Factor by sum/difference of cubes. Check for GCF first!**

19)  $8x^3 - 125$

20)  $64x^3 + 1$

## Factoring Test REVIEW

Date \_\_\_\_\_ Period \_\_\_\_\_

**Factor each trinomial. Be sure to check for the GCF first.**

1)  $x^2 - 13x + 40$

$(x - 8)(x - 5)$

2)  $n^2 - 9n + 20$

$(n - 4)(n - 5)$

3)  $r^2 - 8r + 15$

$(r - 5)(r - 3)$

4)  $m^2 + m - 12$

$(m + 4)(m - 3)$

5)  $2x^2 - 6x - 56$

$2(x - 7)(x + 4)$

6)  $6m^2 - 54m - 60$

$6(m - 10)(m + 1)$

7)  $3x^2 + 15x - 108$

$3(x + 9)(x - 4)$

8)  $4n^2 - 52n + 120$

$4(n - 10)(n - 3)$

9)  $2r^2 - 7r - 49$

$(2r + 7)(r - 7)$

10)  $5p^2 + 7p - 6$

$(5p - 3)(p + 2)$

11)  $7x^2 - 3x - 4$

$(7x + 4)(x - 1)$

12)  $7p^2 + 47p - 72$

$(7p - 9)(p + 8)$

**Factor by grouping. Be sure to check for a GCF first.**

$$13) 5k^3 - 15k^2 - 4k + 12$$
$$(5k^2 - 4)(k - 3)$$

$$14) a^3 + 4a^2 - 5a - 20$$
$$(a^2 - 5)(a + 4)$$

$$15) 84v^3 + 98v^2 - 60v - 70$$
$$2(7v^2 - 5)(6v + 7)$$

$$16) 80r^3 + 64r^2 - 50r - 40$$
$$2(8r^2 - 5)(5r + 4)$$

**Factor by difference of squares. Be sure to check for GCF first.**

$$17) 25x^2 - 16$$
$$(5x + 4)(5x - 4)$$

$$18) 4x^2 - 25$$
$$(2x + 5)(2x - 5)$$

**Factor by sum/difference of cubes. Check for GCF first!**

$$19) 8x^3 - 125$$
$$(2x - 5)(4x^2 + 10x + 25)$$

$$20) 64x^3 + 1$$
$$(4x + 1)(16x^2 - 4x + 1)$$