

**Factoring polynomials extra practice**

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

**Factor each completely.**

1)  $x^2 - 6xy + 8y^2$

2)  $2x^2 + 6xy - 108y^2$

3)  $3x^2 - 18xy + 15y^2$

4)  $-2x^2 - 6xy + 36y^2$

5)  $x^2 + 2xy$

6)  $6m^2 - 114mn + 540n^2$

7)  $7x^2 - 10xy$

8)  $-25x^2 + 10xy + 80y^2$

9)  $15u^2 - 117uv - 24v^2$

10)  $3x^2 + 10xy + 8y^2$

$$11) 10a^2 - 14ab$$

$$12) 15a^2 - 12ab$$

$$13) 9n^2 + 20n - 21$$

$$14) 8n^2 - 24n$$

$$15) 9v^2 + 80v - 9$$

$$16) 16n^2 + 102n + 36$$

$$17) 8x^2 - 69xy + 40y^2$$

$$18) 8x^2 - 10xy - 25y^2$$

$$19) 9m^2 + 16mn - 4n^2$$

$$20) 18x^2 - 6xy - 4y^2$$

## Answers to Factoring polynomials extra practice (ID: 1)

- |                         |                          |                         |                          |
|-------------------------|--------------------------|-------------------------|--------------------------|
| 1) $(x - 2y)(x - 4y)$   | 2) $2(x + 9y)(x - 6y)$   | 3) $3(x - 5y)(x - y)$   | 4) $-2(x + 6y)(x - 3y)$  |
| 5) $x(x + 2y)$          | 6) $6(m - 9n)(m - 10n)$  | 7) $x(7x - 10y)$        | 8) $-5(5x + 8y)(x - 2y)$ |
| 9) $3(5u + v)(u - 8v)$  | 10) $(3x + 4y)(x + 2y)$  | 11) $2a(5a - 7b)$       | 12) $3a(5a - 4b)$        |
| 13) $(n + 3)(9n - 7)$   | 14) $8n(n - 3)$          | 15) $(v + 9)(9v - 1)$   | 16) $2(n + 6)(8n + 3)$   |
| 17) $(x - 8y)(8x - 5y)$ | 18) $(2x - 5y)(4x + 5y)$ | 19) $(m + 2n)(9m - 2n)$ | 20) $2(3x - 2y)(3x + y)$ |