

Factoring Special Cases Homework Practice

Date _____

Period _____

Factor each completely.

1) $36x^2 - 25y^2$

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

2) $81a^2 - 169b^2$

$(9a+13b)(9a-13b)$

3) $25u^2 - 169v^2$

$(5u+13v)(5u-13v)$

4) $169y^2 + 144x^2$

Prime

5) $121y^2 - 100x^2$

$(11y+10x)(11y-10x)$

6) $81x^2 - 16y^2$

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

7) $u^2 - 25v^2$

$(u+5v)(u-5v)$

8) $81b^2 - 49a^2$

$(ab+7a)(ab-7a)$

9) $100m^2 + 169n^2$

10) $x^2 - 121y^2$

Prime

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

11) $81m^2 - n^2$

12) $49a^2 - 4b^2$

$(9m+n)(9m-n)$

$(7a+2b)(7a-2b)$

$$13) x^2 + 8xy + 16y^2$$

$$(x + 4y)^2$$

$$14) 9a^2 + 12ab + 4b^2$$

$$(3a + 2b)^2$$

$$15) 25m^2 - 40mn + 16n^2$$

$$(5m - 4n)^2$$

$$16) a^2 - 10ab + 25b^2$$

$$(a - 5b)^2$$

$$17) x^2 + 10xy + 25y^2$$

$$(x + 5y)^2$$

$$18) 25u^2 - 10uv + v^2$$

$$(5u - v)^2$$

$$19) 9x^2 + 6xy + y^2$$

$$(3x + y)^2$$

$$20) 25a^2 + 40ab + 16b^2$$

$$(5a + 4b)^2$$

$$21) u^2 + 2uv + v^2$$

$$(u + v)^2$$

$$22) 9m^2 - 24mn + 16n^2$$

$$(3m - 4n)^2$$

$$23) 27m^2 + 90mn + 75n^2$$

$$3(9m^2 + 30mn + 25n^2)$$

$$3(3m + 5n)^2$$

$$24) 2x^2 - 12xy + 18y^2$$

$$2(x^2 - 6xy + 9y^2)$$

$$2(x - 3y)^2$$

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