

Factor the following, completely.

1) $4p^2 - 25$

2) $81v^2 - 4$

3) $49n^2 - 36$

4) $n^2 - 25$

5) $4a^2 - 1$

6) $64x^2 - 81$

7) $49a^2 - 4$

8) $r^2 - 16$

9) $25x^2 - 64y^2$

10) $49a^2 - 16b^2$

11) $x^2 - 100y^2$

12) $25x^2 - 49y^2$

13) $900x^2 - 9y^2$

14) $147y^2 - 300x^2$

15) $8x^2 - 18y^2$

16) $576x^2 - 441y^2$

17) $2x^4 - 8y^4$

18) $200a^4 - 392b^4$

19) $125m^4 - 20n^4$

20) $180a^4 - 125b^4$

Answers:

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