

Difference of Squares (ALG.FAC.05)

Factor each expression completely.

1. $a^2 - 25$

2. $b^2 - 64$

3. $c^2 - 121$

4. $5d^2 - 80$

5. $7e^5 - 28e^3$

6. $f^4 - 16$

7. $g^4 - 81$

8. $10h^7 - 360h^5$

9. $m^5n - m^3n^5$

10. $25p^4 - 49p^2$

11. $9p^2 - 81q^2$

12. $81r^8 - 16t^{10}$

13. $16x^4 - y^4$

14. $m^3 + 3m^2 - 9m - 27$

15. $y^3 + 7y^2 - y - 7$

16. $-5y^5 - 25y^4 + 125y^3 + 625y^2$

17. $k^4 - 16k^2 - 9k^2 + 144$

18. $n^5 - n^3 - 25n^3 + 25n$

19. $x^3 - 125x$

20. $3y^2 - 135$

21. $a^2(x^2 - y^2) - b^2(x^2 - y^2)$

22. $4x^4 - 9x^2y^2 - 4x^2y^2 + 9y^4$

23. $9a^2(9a^2 + 3ab - 2b^2) - 4b^2(9a^2 + 3ab - 2b^2)$

24. $5x^5 - 25x^4 - 125x^3y^4 + 20x^3 + 625x^2y^4 - 500xy^4$