



Factoring

Factoring the Difference of Two Squares

$$\begin{aligned}a^2 - 36 &= (a + 6)(a - 6) \\ 3x^2 - 48 &= 3(x^2 - 16) = 3(x + 4)(x - 4)\end{aligned}$$

Factor, write prime if prime.

1. $x^2 - 1$

12. $-x^2 + 16$

2. $x^2 - 9$

13. $36m^2 - 121$

3. $x^2 + 4$

14. $2x^2 - 8$

4. $x^2 - 25$

15. $25 + 4x^2$

5. $9y^2 - 16$

16. $4a^2 - 81b^2$

6. $4x^2 - 25$

17. $12x^2 - 75$

7. $9x^2 - 1$

18. $a^2b - b^3$

8. $a^2 - x^2$

19. $-98 + 2x^2$

9. $25 - m^2$

20. $5x^2 - 45y^2$

10. $x^2 - 16y^2$

21. $9x^4 - 4$

11. $25m^2 - n^2$

22. $16x^4 - y^2$