39 Problems in Factoring by the Difference of Squares
(Part 1)

PROBLEMS

For each of the following expressions, factor by the method "difference of squares."

1. $x^2 - 3^2$

2. $x^2 - 4^2$

3. $x^2 - 1^2$

4. $x^2 - 25$

5. $x^2 - 36$

6. $x^2 - 144$

7. $49 - x^2$

8. $1 - x^2$

9. $81 - x^2$

10. $4x^2 - 9$

11. $16x^2 - 1$

12. $49x^2 - 25$

13. $25 - 4x^2$

14. $36 - 9x^2$

15. $1 - 16x^2$

16. $9x^2 - y^2$

17. $64x^2 - y^2$

18. $121x^2 - y^2$

19. $x^2 - 4y^2$

20. $x^2 - 36y^2$

21. $x^2 - 121y^2$

22. $9x^2 - 16y^2$

23. $49x^2 - 25y^2$

24. $81x^2 - 64y^2$

25. $(x + y)^2 - 4$

26. $(x - y)^2 - 81$

27. $9 - (x + y)^2$

28. $64 - (x - y)^2$

29. $4(x + y)^2 - 16$

30. $81(x - y)^2 - 1$

31. $(x + 3)^2 - (x + 5)^2$

32. $(x - 1)^2 - (x + 2)^2$

33. $x^4 - y^4$

34. $9x^4 - 16y^4$

35. $25x^4 - 81y^4$

36. $x^2 - 5$

37. $x^2 - 10$

38. $2x^2 - 50$

39. $27x^2 - 48y^2$