

Graph each set and write the solution in the opposite notation then it was given.

1. $[-2, 5)$

2. $\{x | x \leq 2\}$

3. $\{x | 1 < x \leq 4\} \cup \{x | x > 5\}$

4. $(-10, 3) \cap [-4, \infty)$

Factor completely.

5. $x^2 + 2x - 63$

6. $x^2 + 12x + 36$

7. $6x^2 + 7xy - 3y^2$

8. $3x^4 + 27x^3 + 54x^2$

9. $x^2 - 81$

10. $10x^2 + 30x - 280$

11. $4x^2 - 121$

12. $8x^3 + 64$

13. $x^2 - 24x + 144$

14. $x^3 - 27$

15. $15x^4 + 45x^2$

16. $4x^2 + 12xy + 9y^2$

17. $x^3 + 8y^3$

18. $36x^2 - 64y^2$

19. $6x^3 + 64x^2 + 40x$

20. $64x^3 + 27$