

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

1. $[6,10) \cap [7,\infty)$

2. $\{x \mid -5 < x \leq 2\}$

3. $\{x \mid x \leq 0\} \cup \{x \mid x > 5\}$

4. $(-7,3) \cap [-1,\infty)$

Factor completely.

5. $x^2 + 7x + 12$

6. $x^2 - 10x - 24$

7. $6x^2 + xy - 40y^2$

8. $8x^4 - 26x^3 + 15x^2$

9. $36x^2 - 81$

10. $9x^2 + 10x + 1$

11. $16x^2 - 49$

12. $x^3 + 27y^3$

13. $x^2 + 10x + 25$

14. $27x^3 - 8$

15. $16x^3 + 36x^2$

16. $8x^2 + 10xy - 25y^2$

17. $x^3 + y^3$

18. $4x^2 - 169y^2$

19. $4x^2 + 12x + 9$

20. $8x^3 + 1$