

2.6 Practice A

In Exercises 1–12, factor the polynomial.

1. $6x^2 - 12x - 18$

2. $5x^2 - 15x - 50$

3. $9x^2 - 36x + 27$

4. $2x^2 + 2x - 4$

5. $6x^2 - 7x - 20$

6. $2x^2 - 5x - 3$

7. $4x^2 + 21x - 18$

8. $2x^2 - 13x - 45$

9. $3x^2 + 22x - 16$

10. $-2p^2 + 7p - 6$

11. $-5v^2 + 31v - 6$

12. $-6v^2 - 11v - 4$

13. Describe and correct the error in factoring the polynomial.

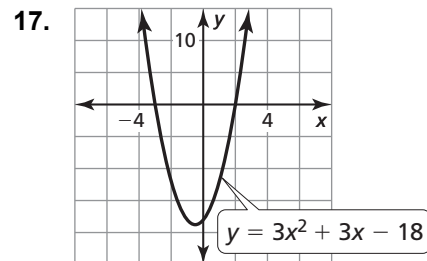
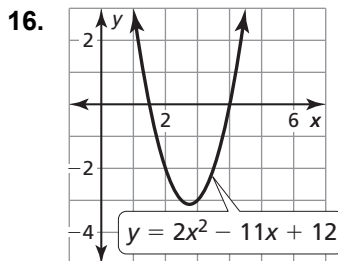
$\times \quad -2t^2 + 13t - 15 = (2t + 3)(t + 5)$

In Exercises 14 and 15, solve the equation.

14. $4x^2 - 4x - 24 = 0$

15. $3p^2 - 5p - 28 = 0$

In Exercises 16 and 17, find the x -coordinates of the points where the graph crosses the x -axis.



18. The height h (in feet) above the water of a cliff diver is modeled by $h = -16t^2 + 10t + 26$, where t is the time (in seconds). How long is the diver in the air?

19. For what values of t can $10x^2 + tx + 8$ be written as the product of two binomials?

In Exercises 20 and 21, factor the polynomial.

20. $6a^2 - 13ab - 5b^2$

21. $4x^2 + 11xy - 3y^2$