

7.6

Practice A

In Exercises 1–12, factor the polynomial.

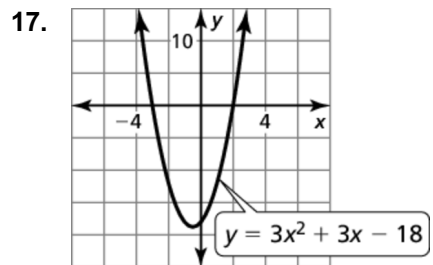
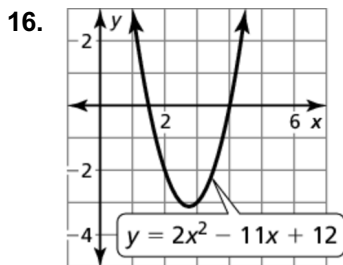
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|----------------------|-----------------------|-----------------------|
| 1. $6x^2 - 12x - 18$ | 2. $5x^2 - 15x - 50$ | 3. $9x^2 - 36x + 27$ |
| 4. $2x^2 + 2x - 4$ | 5. $6x^2 - 7x - 20$ | 6. $2x^2 - 5x - 3$ |
| 7. $4x^2 + 21x - 18$ | 8. $2x^2 - 13x - 45$ | 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.

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| 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.

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| 20. $6a^2 - 13ab - 5b^2$ | 21. $4x^2 + 11xy - 3y^2$ |
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