# Algebra Review

In problems 1-3, solve each equation using the quadratic formula

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| 1. $8x^2 - 6x - 1 = 0$ | 2. $x^2 + 2x + 9 = 0$ |
| 3. $8x^2 + 7x - 1 = 0$ | |

In problems 4-20, factor

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|---|---|
| 4. $8x^2 + 32x - 16$ | 5. $3x^5 - 9x^3 + 9x^2$ |
| 6. $-10x^7 + 25x^2$ | 7. $x^2 - 2x - 48$ |
| 8. $x^2 - 34x + 120$ | 9. $x^2 - 6x - 40$ |
| 10. $x^2 + 18x + 80$ | 11. $7x^2 - 22x + 3$ |
| 12. $16x^2 - 2x - 3$ | 13. $60x^2 - 16x + 1$ |
| 14. $5x^2 + 13x + 6$ | 15. $2ax + 6a - bx - 3b$ |
| 16. $36x^2 - 27x - 4x + 3$ | 17. $100x^2 - 49$ |
| 18. $9x^2 - 1$ | 19. $8x^3 + 27$ |
| 20. $27x^3 - 64$ | |

In problems 21-23, solve each equation using the zero factor property

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| 21. $9x^2 - 27x = 0$ | 22. $x^2 - 18x + 77 = 0$ |
| 23. $5x^2 + 19x - 4 = 0$ | |

# Algebra Review

In problems 24-26, solve each equation using the square root property

| 24. $x^2 = 40$ | 25. $(x-5)^2 = -18$ |
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| 26. $(5x-1)^2 = 16$ | |

In problems 27-28, solve each equation using the power principle

| 27. $(x+4)^{\frac{5}{2}} = 32$ | 28. $(x-1)^{\frac{4}{3}} = 81$ |
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In problems 29-30, solve each equation using the INTERSECT feature of the TI-83/84 (if the answer will not change to a fraction, round to two decimal places)

| 29. $7x^3 - 48x^2 + 63x + 10 = 0$ | 30. $x^3 + 5x^2 - 6x + 1 = 0$ |
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