

# Factoring Binomials

Factor each binomial equation.

**Example:**  $9x^2 - 4 = (3x + 2)(3x - 2)$

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|---------------------|---------------------|
| 1. $4x^2 - 1 =$     | 2. $x^2 - 9 =$      |
| 3. $36x^2 - 9 =$    | 4. $100x^2 - 81 =$  |
| 5. $25x^2 - 4 =$    | 6. $81x^2 - 121 =$  |
| 7. $x^2 - 16 =$     | 8. $144x^2 - 16 =$  |
| 9. $x^2 - 25 =$     | 10. $625 - 16x^2 =$ |
| 11. $100 - x^2 =$   | 12. $x^2 - 36 =$    |
| 13. $121x^2 - 49 =$ | 14. $49x^2 - 16 =$  |

Cross out the correct answers below. Use the remaining letters to complete the statement.

$(x + 13)(x - 13)$ THE	$16(3x - 1)(3x - 1)$ SUM	$(x - 4)(x + 4)$ OFA	$(6x + 5)(6x - 5)$ PRO	$(25 - 4x)(25 + 4x)$ QUO	$(x + 1)(x - 1)$ DUC
$(9 + x)(9 - x)$ TOF	$9(2x - 1)(2x + 1)$ TIE	$(x + 7)(x - 7)$ THE	$(2x + 1)(2x - 1)$ NTA	$(9x + 1)(9x - 1)$ SUM	$(x + 2)(x - 2)$ AND
$(10 - x)(10 + x)$ WAS	$(5x + 3)(5x - 3)$ DIF	$(x - 5)(x + 5)$ HAS	$(8x + 1)(8x - 1)$ FER	$(11x - 7)(11x + 7)$ MAN	$(x - 6)(x + 6)$ NER
$(x + 18)(x - 18)$ ENC	$(10x - 9)(10x + 9)$ THA	$(x - 3)(x + 3)$ TIS	$(5x - 2)(5x + 2)$ MYP	$(7x + 11)(7x - 11)$ EOF	$(x + 8)(x - 8)$ THE
$(x + 15)(x - 15)$ SQU	$(9x - 11)(9x + 11)$ ROB	$(x + 9)(x - 9)$ ARE	$(3x + 2)(3x - 2)$ ROO	$(7x - 4)(7x + 4)$ LEM	$(x + 9)(x - 9)$ TS.

15. The factored form of the difference of the two squares is

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