Factor the following quadratic functions:

1. $4x^2 - 25$
2. $3x^2 - 12x$
3. $2x^2 - 8$
4. $3x^2 + 7x - 6$
5. $x^2 - 3x - 28$
6. $x^2 - 12x + 36$
7. $8x^2 + 7x - 1$
8. $4x^2 - 4x + 1$
9. $10x^2 - 3x - 4$
10. $x^2 - 9x + 20$

Solutions

1. $(2x - 5)(2x + 5)$
2. $3x^2 - 12x = 3x(x - 4)$
3. $2(x^2 - 4) = 2(x - 2)(x + 2)$
4. $(3x - 2)(x + 3)$
5. $(x - 7)(x + 4)$
6. $(x - 6)(x - 6) = (x - 6)^2$
7. $(8x - 1)(x + 1)$
8. $(2x - 1)(2x - 1) = (2x - 1)^2$
9. $(2x + 1)(5x - 4)$
10. $(x - 5)(x - 4)$