

Factoring: *Difference of Two Squares* $x^2 - a^2$

Factor the binomials completely.

1. $x^2 - 25$

7. $x^2 - 121$

2. $3y^2 - 12$

8. $y^4 - 81$

3. $36m^2 - 49$

9. $m^2 - 4r^2$

4. $y^2 - b^2$

10. $x^2 - 1$

5. $a^2 + 16$

11. $x^2 - 8$

6. $a^2 - 9b$

12. $144x^2 - 169y^2$

ANSWERS:

1. $(x+5)(x-5)$

4. $(y-b)(y+b)$

7. $(x-11)(x+11)$

10. $(x-1)(x+1)$

2. $3(y+2)(y-2)$

5. Not Factorable

8. $(y^2+9)(y+3)(y-3)$

11. Not Factorable

3. $(6m-7)(6m+7)$

6. $(a+3b)(a-3b)$

9. $(m+2r)(m-2r)$

12. $(12x-13y)(12x+13y)$