

Factoring: All Types  
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Factor completely.

1.  $2a^2b - 4ab^2$

2.  $4 - x^2$

3.  $a^2 + 8a + 16$

4.  $2a^2 + 6a - ab - 3b$

5.  $9x^2 + 100y^2$

6.  $2y^3 - 128$

7.  $z^2 - 7z + 12$

8.  $y(3x - 2) + 4(2 - 3x)$

9.  $16c^2 - 36d^2$

10.  $y^2 + 5y - 24$

11.  $m^2 + 14m + 49$

12.  $x^3 - 4x^2 - 9x + 36$

13.  $128t^4 - 2t^2$

14.  $27h^3 + 8$

15.  $8x^2 + 6xy - 9y^2$

Answers

1.  $2ab(a - 2b)$

2.  $(2 - x)(2 + x)$

3.  $(a + 4)^2$

4.  $(a + 3)(2a - b)$

5. Nonfactorable

6.  $2(y - 4)(y^2 + 4y + 16)$

7.  $(z - 4)(z - 3)$

8.  $(3x - 2)(y - 4)$

9.  $4(2c - 3d)(2c + 3d)$

10.  $(y + 8)(y - 3)$

11.  $(m + 7)^2$

12.  $(x - 1)(x - 3)(x + 3)$

13.  $2t^2(8t - 1)(8t + 1)$

14.  $(3h + 2)(9h^2 + 6h + 4)$

15.  $(4x - 3y)(2x + 3y)$

Please visit the Learning Lab for further assistance.