

# Factoring the Difference of Two Perfect Squares

Factor each completely.

1  $x^2 - 144$

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2  $b^2 - 36$

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3  $25y^2 - 16$

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4  $361a^2 - b^2$

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5  $25a^2 - 4b^2$

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6  $64p^2 - 9$

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7  $49x^2 - 81$

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8  $121m^2 - 4$

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9  $9x^2 - 1$

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10  $(p - q)^2 - 100$

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# Factoring the Difference of Two Perfect Squares

## Answers

1  $x^2 - 144$

$$\underline{(x + 12)(x - 12)}$$

3  $25y^2 - 16$

$$\underline{(5y + 4)(5y - 4)}$$

5  $25a^2 - 4b^2$

$$\underline{(5a + 2b)(5a - 2b)}$$

7  $49x^2 - 81$

$$\underline{(7x + 9)(7x - 9)}$$

9  $9x^2 - 1$

$$\underline{(3x + 1)(3x - 1)}$$

2  $b^2 - 36$

$$\underline{(b + 6)(b - 6)}$$

4  $361a^2 - b^2$

$$\underline{(19a + b)(19a - b)}$$

6  $64p^2 - 9$

$$\underline{(8p + 3)(8p - 3)}$$

8  $121m^2 - 4$

$$\underline{(11m + 2)(11m - 2)}$$

10  $(p - q)^2 - 100$

$$\underline{(p - q + 10)(p - q - 10)}$$