



Factorizations Ex 7.5 Q1

**Answer :**

$$\begin{aligned}16x^2 - 25y^2 \\&= (4x)^2 - (5y)^2 \\&= (4x - 5y)(4x + 5y)\end{aligned}$$

Factorizations Ex 7.5 Q2

**Answer :**

$$\begin{aligned}27x^2 - 12y^2 \\&= 3(9x^2 - 4y^2) \\&= 3[(3x)^2 - (2y)^2] \\&= 3(3x - 2y)(3x + 2y)\end{aligned}$$

Factorizations Ex 7.5 Q3

**Answer :**

$$\begin{aligned} &144a^2 - 289b^2 \\ &= (12a)^2 - (17b)^2 \\ &= (12a - 17b)(12a + 17b) \end{aligned}$$

Factorizations Ex 7.5 Q4

**Answer :**

$$\begin{aligned} &12m^2 - 27 \\ &= 3(4m^2 - 9) \\ &= 3[(2m)^2 - 3^2] \\ &= 3(2m - 3)(2m + 3) \end{aligned}$$

Factorizations Ex 7.5 Q5

**Answer :**

$$\begin{aligned} & 125x^2 - 45y^2 \\ &= 5(25x^2 - 9y^2) \\ &= 5[(5x)^2 - (3y)^2] \\ &= 5(5x - 3y)(5x + 3y) \end{aligned}$$

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