

Actividad #7

1. $x^2 - y^2$

$$(x - y) \times (x + y)$$

2. $4x^2 - 81y^4$

$$(2x)^2 - (9y^2)^2$$

$$= (2x - 9y^2) \times (2x + 9y^2)$$

3. $27a^3 - 8b^6$

$$(3a)^3 - (2b^2)^3$$

$$(3a - 2b^2) \times (9a^2 + 6ab^2 + 4b^4)$$

4. $64m^3 + 125n^6$

$$(4m)^3 + (5n^2)^3$$

$$(4m + 5n^2) \times (16m^2 - 20mn^2 + 25n^4)$$

$$5. m^6 - 216$$

$$m^3 \cdot 12 - 69$$

$$(m^2)^3 - 69 = (m^2 - 6) \times (m^4 + 6m^2 + 36)$$

$$6. 125x^3 + 100xy^6$$

$$125(x^3 + 8y^6)$$

$$= 125(x + 2y^2) \times (x^2 - 2xy^2 + 4y^4)$$

$$7. 100m^2 - 81n^2$$

$$\frac{10^2 m^2 - 9^2 n^2}{(10m)^2 - (9n)^2}$$

$$= (10m - 9n) \times (10m + 9n)$$

$$8. 49a^4 - 36b^2$$

$$7^2 a^2 x^2 - 6^2 b^2$$

$$7^2 x (a^2)^2 - (6b)^2$$

$$\frac{7^2 a^2 x^2 - 6^2 b^2}{(7a^2)^2 - (6b)^2} = (7a^2 - 6b) \times (7a^2 + 6b)$$