

1) $a^2 - 49$

$$(a + 7)(a - 7)$$

check: $(a+7)(a-7)$
 $a^2 - 7a + 7a - 49$
 $a^2 - 49 \checkmark$

2) $x^2 - y^2$

$$(x + y)(x - y)$$

3) $16u^2 - 81v^2$

$$(4u + 9v)(4u - 9v)$$

4) $36x^2 - 25$

$$(6x + 5)(6x - 5)$$

5) $x^4 - 81$

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

$$(x^2 + 9)(x + 3)(x - 3)$$

6) $a^4 - 16$

$$(a^2 + 4)(a^2 - 4)$$

$$(a^2 + 4)(a + 2)(a - 2)$$