

Una cada cociente notable con su respectiva respuesta

$$\frac{x^4-1}{1+x^2} =$$

$$4-a$$

Caso 1

Este caso se produce cuando n es un número par o impar.

$$\frac{x^n - y^n}{x - y} = x^{n-1} + x^{n-2}y + x^{n-3}y^2 + \dots + y^{n-1}$$

$$\frac{8m^3+n^6}{2m+n^2} =$$

$$x^2 - 1$$

Caso 2

Este caso se produce cuando n es un número par.

$$\frac{x^n - y^n}{x + y} = x^{n-1} - x^{n-2}y + x^{n-3}y^2 - \dots + y^{n-1}$$

$$\frac{1-a^5}{1-a} =$$

$$3 - 6x^3$$

Caso 3

Este caso se produce cuando n es un número impar.

$$\frac{x^n + y^n}{x + y} = x^{n-1} - x^{n-2}y + x^{n-3}y^2 - \dots + y^{n-1}$$

$$\frac{x^6-27y^3}{x^2-3y} =$$

$$x^3 - 7y^3$$

$$\frac{x^6-49y^6}{x^3+7y^3} =$$

$$a + x + y$$

$$\frac{a^{14}-b^{14}}{a^2-b^2} =$$

$$1 - ab^2c^4$$

$$\frac{1+a^3}{1+a} =$$

$$a^2 - a + 1$$

$$\frac{16x^2y^4-25m^6}{4xy^2+m^3} =$$

$$4xy^2 - m^3$$

$$\frac{x^{27}+y^{27}}{x^3+y^3} =$$

$$a^2b^2 - 8x^3$$

$$\frac{x^{27}+y^{27}}{a^9+y^9} =$$

$$x^8 + x^4 + 1$$

$$\frac{a^4b^4-64x^6}{a^2b^2+8x^3} =$$

$$a^{18} - a^9y^9 + y^{18}$$

$$\frac{1+a^2b^4c^8}{1+ab^2c^4} =$$

$$x^4 + 3x^2y + 9y^2$$

$$\frac{32x^5+243y^5}{2x+3y} =$$

$$4m^2 - 2mn^2 + n^4$$

$$\frac{25-(a+1)^2}{5+(a+1)} =$$

$$a^4 + a^3 + a^2 + a + 1$$

$$\frac{1-x^{12}}{1-x^4} =$$

$$16x^4 + 28x^2y^3 + 49y^6$$

$$\frac{64x^6-343y^9}{4x^2-7y^3} =$$

$$x^{32} + x^{24}y^8 + x^{16}y^{16} + x^8y^{24} + y^{32}$$

$$\frac{a^{18}-b^{18}}{a^3+b^3} =$$

$$a^{15} - a^{12}b^3 + a^9b^6 - a^6b^9 + a^3b^{12} - b^{15}$$

$$\frac{(a+x)^2-y^2}{(a+x)-y} =$$

$$16x^4 - 24x^3y + 36x^2y^2 - 54xy^3 + 81y^4$$

$$\frac{1+x^{11}}{x+1} =$$

$$a^{12} + a^{10}b^2 + a^8b^4 + a^6b^6 + a^4b^8 + a^2b^{10} + b^{12}$$

$$\frac{x^{40}-y^{40}}{x^8-y^8} =$$

$$x^7 + 2x^6 + 4x^5 + 8x^4 + 16x^3 + 32x^2 + 64x + 128$$

$$\frac{9-36x^6}{3+6x^3} =$$

$$x^{10} - x^9 + x^8 - x^7 + x^6 - x^5 + x^4 - x^3 + x^2 - x + 1$$

$$\frac{x^8-256}{x-2} =$$

$$x^{24} - x^{21}y^3 + x^{18}y^6 - x^{15}y^9 + x^{12}y^{12} - x^9y^{15} + x^6y^{18} - x^3y^{21} + y^{24}$$