Fraccions algebraiques 1r batxillerat

Exercici 1:

$$\frac{1}{x^2-x}-\frac{2-x}{x-1}-\frac{1}{x^2}$$ **solució:** $$\frac{x^2-x-1}{x^2}$$

Exercici 2:

$$\frac{x}{2}-\frac{1}{2x^2-50}+\frac{3}{x-5}$$ **solució** $$\frac{x^3-19x+29}{2(x+5)(x-5)}$$

Exercici 3:

$$\frac{1}{x^2+7x+12}-\frac{1}{x^2-9}+\frac{1}{x+4}$$ **solució**: $$\frac{x-4}{(x+3)(x-3)}$$

Exercici 4:

$$\frac{2x}{x+1}+\frac{3x}{x^2-1}-\frac{3}{x^2+2x+1}$$ **solució**: $$\frac{2x^3+3x^2-2x+3}{(x+1)^2(x-1)}$$

Exercici 5:

$$\frac{x^2-1}{x-1}\cdot\frac{x+1}{x^2-2x+1}$$ **solució**: $$\left(\frac{(x+1)}{(x-1)}\right)^2$$

Exercici 6:

$$\frac{x^3-2x^2}{x^2-8x+16}\div\frac{x}{x-4}$$ **solució**: $\frac{x(x-2)}{x-4}$

Exercici 7:

$$\frac{x^2-x-2}{x+3}\cdot\frac{x^2+2x-3}{(x-2)^3}\div\frac{x^2-1}{x^2-4x+4}$$ **solució**: 1

Exercici 8:

$$\left(\frac{1}{x}+\frac{1}{x^2-1}\right)\cdot\left(\frac{x+1}{2}\div\frac{x}{x-1}\right)$$ **solució**: $\frac{x^2+x-1}{2x^2}$

Exercici 9:

$$\frac{3x}{x+1}\div\frac{2x^2+x}{2x^2-2}$$ **solució**: $\frac{6(x-1)}{2x+1}$

Exercici 10:

$$\left(\frac{3x+1}{x^3+2x^2}-\frac{8}{x^2-4}\right)\div\frac{2x}{x^2-2x}$$ **solució**: $\frac{-5x^2-5x-2}{2x^2(x+2)}$