

Disequazioni razionali

Periodo 2 - UdA 6

Risolvere le seguenti disequazioni

$$[1] \quad -\frac{4x^4(x+2)}{5(x-2)^3(x+1)} \leq 0$$

$$[2] \quad \frac{2x^2(x^4+1)}{3(x+2)^3(x-1)^3} \geq 0$$

$$[3] \quad \frac{3x(x^4+3)}{4(x+3)^2(x+2)} > 0$$

$$[4] \quad \frac{2(x-3)^4(x-1)}{3(x+1)^2(x+2)^3} \leq 0$$

$$[5] \quad -\frac{2x^5(x+2)^2}{3(x+4)(x-2)^3} \geq 0$$

$$[6] \quad -\frac{(x+2)(x^2+4)}{2(x+4)^3(x-1)} > 0$$

$$[7] \quad \frac{4(x-2)^2(x-3)}{3(x+1)^3(x^4+2)} \geq 0$$

$$[8] \quad -\frac{x^3(x-1)^2}{2(x+2)^3(x+1)} \leq 0$$

$$[9] \quad \frac{(x+1)^2(x^6+1)}{2(x+4)^2(x-3)^4} > 0$$

SOLUZIONI

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1. $-2 \leq x < -1 \quad x = 0 \quad 2 < x$

2. $x < -2 \quad x = 0 \quad 1 < x$

3. $x < -3 \quad -3 < x < -2 \quad 0 < x$

4. $-2 < x < -1 \quad -1 < x \leq 1 \quad x = 3$

5. $x < -4 \quad x = -2 \quad 0 \leq x < 2$

6. $x < -4 \quad -2 < x < 1$

7. $x < -1 \quad x = 2 \quad 3 \leq x$

8. $-2 < x < -1 \quad 0 \leq x \leq 1 \quad 1 \leq x$

9. $x < -4 \quad -4 < x < -1 \quad -1 < x < 3 \quad 3 < x$