Inequalities. Comparison to zero.

Task 1. Compare to zero! Justify the answer!

a) $\dfrac{x^2+1}{2}$ _____

b) $\dfrac{-1}{x^2+3}$ _____

c) $-7(x^2+1)$ _____

d) $5(9+x^2)$ _____

What knowledge helped solve the task?_____

Task 2. Solve inequalities by evaluating the meter or denominator sign!

a) $\dfrac{-5}{20-x} > 0$

b) $\dfrac{4y-1}{y^2+1} < 0$

Your questions: _____

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Write the conclusions using the form: if ....., then .....!

• If the members of the actions are positive numbers, the multiplication / division mark is _____

• If the members of the activities are negative, then the multiplication / division mark is _____

• If the multiplication / division mark is a negative number, then the members of the activities are _____

• If the division is a non-negative number, then the members of the activities are _____

Task 3. Prove that the inequalities is true for all variables

a) $\dfrac{(k+8)^2}{13} \geq 0$ _____

b) $\dfrac{-11}{(m-12)^2} < 0$ _____

Task 4. Solve the inequalities by judging when a division / multiplication is positive or negative!

a) $\dfrac{x-5}{x} > 0$ 　　　　　　　　　　　　　　b) (2-x)(2x+6)<0

Write an algorithm that can be used to solve inequalities g(x) · f(x) > 0 un g(x) / f(x) > 0

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