Ulohy na 30.9.2014

1) Upravte tento vyraz

$$\frac{a+b}{a-b} - \frac{a-b}{a^2-b^2} + \frac{ab}{(a-b)^2}$$

2) Najdite hodnotu x pre ktoru plati

$$x + \frac{16}{x+3} \;=\; 5$$

$$\frac{x}{3x+34} \;=\; \frac{x-7}{12x+136}$$

$$|2x-5| + 2x - 5 \;=\; 0$$

$$|3-2x| + 3x + 3 \;=\; 0$$

$$|x^2 + x - 2| \;=\; 3 - x$$

$$2.5^x + 5^{x+2} - 3.5^{x+1} - 2(5.5^{x-1}) \;=\; 10$$

$$5^{x-2} - 5^x + 5^{x-1} \;=\; \frac{19}{25}$$

3) Urcte definicny obor

$$\sqrt{8x-3}$$

$$\sqrt{\ln(1-4x)}$$

$$\sqrt{\frac{x-7}{3-x}}$$

$$\sqrt{\sin(\pi+x)}$$

$$\frac{x^7 + 12x^5 + x^{3/7} - 1}{(2x^2 - x)(x^2 - x - 2)}$$

4) Najdite interval, pre ktory plati

$$(x+3)(x-2) \;\geq\; (x-7)(1-2x)$$

$$\frac{5-x}{3x+4} \;\leq\; 0$$

$$\frac{x-3}{x+2} \;\geq\; \frac{x+2}{x-3}$$