d) $\sqrt{2x-3}+\sqrt{x+4}=\sqrt{3x+1}$

$2x-3\geq 0 \Rightarrow x\geq \frac{3}{2}$

$x+4\geq 0 \Rightarrow x\geq -4$

$3x+1\geq 0 \Rightarrow x\geq -\frac{1}{3}$

$D_f=\left\langle \frac{3}{2},\infty \right)$

$\sqrt{2x-3}+\sqrt{x+4}=\sqrt{3x+1}\,/^2$

$2x-3+2\sqrt{2x^2+5x-12}+x+4=3x+1$

$2\sqrt{2x^2+5x-12}=0/:2$

$\sqrt{2x^2+5x-12}=0$

$2x^2+5x-12=0$

$x_{1,2}=\frac{-5\pm\sqrt{25+96}}{4}=\frac{-5\pm 11}{4}$

$x_1=\frac{3}{2},\quad x_2=-4$

$-4\notin D_f$

Zkouška:

$L=\sqrt{0}+\sqrt{\frac{11}{2}}=\sqrt{\frac{11}{2}}$

$P=\sqrt{\frac{9}{2}+1}=\sqrt{\frac{11}{2}}$

$L=P$

$P=\left\{\frac{3}{2}\right\}$

Zpět: