Rationalizing

Stephen Styles

June 25, 2019

1. *Solve* $\lim\limits_{x \to 8} \dfrac{\sqrt{x+1} - 3}{x - 8}$

2. *Solve* $\lim\limits_{x \to 5} \dfrac{\sqrt{x^2 + 11} - 6}{x - 5}$

3. *Solve* $\lim\limits_{x \to 0} \dfrac{\sqrt{x+2} - \sqrt{2}}{x}$

4. *Solve* $\lim\limits_{x \to 0} \dfrac{x}{\sqrt{x+9}-3}$

5. *Solve* $\lim\limits_{x \to 1} \dfrac{x-1}{\sqrt{x}-1}$

6. *Solve* $\lim\limits_{x \to 3} \dfrac{\sqrt{7-x}-2}{1-\sqrt{4-x}}$

7. *Solve* $\lim\limits_{x \to 0} \dfrac{x}{3-\sqrt{x+9}}$

8. *Solve* $\lim\limits_{x \to 0} \dfrac{\sqrt{x+9} - \sqrt{-x+9}}{x}$

9. *Solve* $\lim\limits_{x \to 4} \dfrac{\sqrt{x+5} - 3}{x-4}$

10. *Solve* $\lim\limits_{x \to 5} \dfrac{x-2}{\sqrt{x-1} - 1}$