Calculus Name_____ ID: 1

RL 4.1.20 Limits with Radical Rationals

Date_____ Period____

Evaluate each limit.

1) $\lim_{x \to 7} \frac{\sqrt{x+2}-3}{x-7}$

2) $\lim_{x \to 7} \frac{x-7}{\sqrt{x-6}-1}$

3) $\lim_{x \to 16} \frac{\sqrt{x}-4}{x-16}$

4) $\lim_{x \to 1} \frac{x-1}{\sqrt{x}-1}$

5) $\lim_{x \to 1} \frac{\sqrt{x+3}-2}{x-1}$

6) $\lim_{x \to 7} \frac{\sqrt{x+9}-4}{x-7}$

7) $\lim_{x \to 7} \frac{\sqrt{x-3}-2}{x-7}$

8) $\lim_{x \to 16} \frac{x-16}{\sqrt{x}-4}$

9) $\lim_{x \to 4} \frac{\sqrt{x}-2}{x-4}$

10) $\lim_{x \to 1} \frac{\sqrt{x}-1}{x-1}$

Answers to RL 4.1.20 Limits with Radical Rationals (ID: 1)

1) $\frac{1}{6}$

2) 2

3) $\frac{1}{8}$

4) 2

5) $\frac{1}{4}$

6) $\frac{1}{8}$

7) $\frac{1}{4}$

8) 8

9) $\frac{1}{4}$

10) $\frac{1}{2}$