Evaluate the following limits. **Show your work!**

1. $\lim_{x\to -3}\left[\dfrac{x+3}{\frac{1}{x}+\frac{1}{3}}\right]$

2. $\lim_{x\to 2}\left[\dfrac{x^2-x-2}{(x-2)^2}\right]$

3. $\lim_{x\to -2}\left[\dfrac{x^3+8}{x^4-16}\right]$

4. $\lim_{x\to 1}\left[\dfrac{x^2}{x-1}-\dfrac{1}{x-1}\right]$

5. $\lim_{x\to 3^-}\left[\dfrac{\sqrt{(x-3)^2}}{x-3}\right]$

6. $\lim_{x\to 0}\left[\dfrac{4-\sqrt{16+x}}{x}\right]$

7. $\lim_{x\to 1}\left[\dfrac{(x-1)^5}{x^5-1}\right]$

8. $\lim_{x\to 9}\left[\dfrac{x^2-81}{3-\sqrt{x}}\right]$

9. $\lim_{x\to 8}\left[\dfrac{x-8}{\sqrt[3]{x}-2}\right]$

10. $\lim_{x\to 0}\left[\dfrac{(9+x)^{-1}-9^{-1}}{x}\right]$