Solutions to suggested review problems from Appendix F.

You can use L'Hospital's rule on all problems, except where noted.

1. 0

2. $-\infty$ (Not an indeterminate form. We find directly since $\ln x \to -\infty$ and $1/x \to \infty$.

3. 0

4. 0 (Not an indeterminate form. Find directly by plugging in $x = 0$.)

5. 0

6. $\frac{1}{3}$

7. (a) 3 (Not an indeterminate form. Find directly by plugging in.) (b) 0 (You can use L'Hospitals rule or rules we learned in Xa).

8. ∞ (Simplify to solve or use L'Hospital's rule.)

10. 0 (Not an indeterminate form. Find directly by noting that $e^x + 2 \to 0$ and $1/x \to 0$.)

11. ∞

12. 0 (Not an indeterminate form. Find directly by noting that $\ln(1 - 2x) \to \infty$ and $1/(2x - 1) \to \infty$.)

13. ≈ 0.783

14. $-\infty$

15. (a) 0 (b) ∞

18. 0