

Homework: Polynomial and Rational Inequalities

In Problems 1-11, solve each polynomial inequality and express each solution set in interval notation

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| 1. $(-1,6)$ | 2. $(-\infty,2] \cup [5,\infty)$ |
| 3. No Solution | 4. $\left[\frac{2}{3}, 5\right]$ |
| 5. $(-\infty,-4) \cup \left(\frac{3}{8}, \infty\right)$ | 6. $\left[0, \frac{5}{7}\right]$ |
| 7. $(-\infty,4-\sqrt{14}) \cup (4+\sqrt{14}, \infty)$ | 8. $[-8,-1] \cup [3,\infty)$ |
| 9. $(-\infty,-5)$ | 10. $(-\infty,-2] \cup [1,7]$ |
| 11. $(-8,0) \cup (0,\infty)$ | |

In Problems 12-15, solve each rational inequality and express each solution set in interval notation

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| 12. $(-2,5)$ | 13. $(-\infty,-7) \cup \left[\frac{2}{3}, \infty\right)$ |
| 13. $(-8,-2] \cup [5,\infty)$ | 13. $(-\infty,2] \cup (5,\infty)$ |