9.8 EXERCISES

Practice Makes Perfect

Solve Quadratic Inequalities Graphically

In the following exercises, ⓐ solve graphically and ⓑ write the solution in interval notation.

363. $x^2+6x+5>0$

364. $x^2+4x-12<0$

365. $x^2+4x+3\leq 0$

366. $x^2-6x+8\geq 0$

367. $-x^2-3x+18\leq 0$

368. $-x^2+2x+24<0$

369. $-x^2+x+12\geq 0$

370. $-x^2+2x+15>0$

In the following exercises, solve each inequality algebraically and write any solution in interval notation.

371. $x^2+3x-4\geq 0$

372. $x^2+x-6\leq 0$

373. $x^2-7x+10<0$

374. $x^2-4x+3>0$

375. $x^2+8x>-15$

376. $x^2+8x<-12$

377. $x^2-4x+2\leq 0$

378. $-x^2+8x-11<0$

379. $x^2-10x>-19$

380. $x^2+6x<-3$

381. $-6x^2+19x-10\geq 0$

382. $-3x^2-4x+4\leq 0$

383. $-2x^2+7x+4\geq 0$

384. $2x^2+5x-12>0$

385. $x^2+3x+5>0$

386. $x^2-3x+6\leq 0$

387. $-x^2+x-7>0$

388. $-x^2-4x-5<0$

389. $-2x^2+8x-10<0$

390. $-x^2+2x-7\geq 0$

Writing Exercises

391. Explain critical points and how they are used to solve quadratic inequalities algebraically.

392. Solve $x^2+2x\geq 8$ both graphically and algebraically. Which method do you prefer, and why?

393. Describe the steps needed to solve a quadratic inequality graphically.

394. Describe the steps needed to solve a quadratic inequality algebraically.

Self Check

ⓐ After completing the exercises, use this checklist to evaluate your mastery of the objectives of this section.

I can...	Confidently	With some help	No-I don't get it!
solve quadratic inequalities graphically.			
solve quadratic inequalities algebraically.			

ⓑ On a scale of 1-10, how would you rate your mastery of this section in light of your responses on the checklist? How can you improve this?