Section 2: Inequalities

Section test

Solve the inequality in each of questions 1 – 9.

1. $5x-2<3x+8$

2. $\frac{x+1}{2} \leq \frac{2-x}{3}$

3. $2(1-2x)-x>3(x+1)+7$

4. $x^2-5x+4>0$

5. $2x^2-x-3 \leq 0$

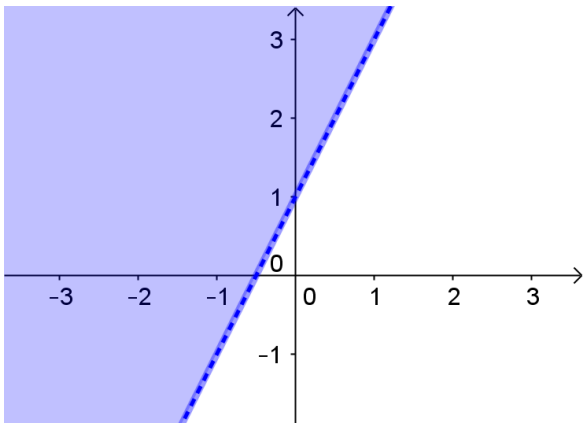
6. $8+2x-x^2<0$

7. $6x^2+x-2 \geq 0$

8. $2x^2-x+1<x^2-4x-1$

9. The quadratic equation $x^2+(k-1)x+4=0$ has at least one real root.
   Find the range of possible values for k.

10. Which of the inequalities below describes the shaded region in the diagram?



(a) $y<2x+1$ (b) $y>2x+1$
(c) $y \leq 2x+1$ (d) $y \geq 2x+1$

