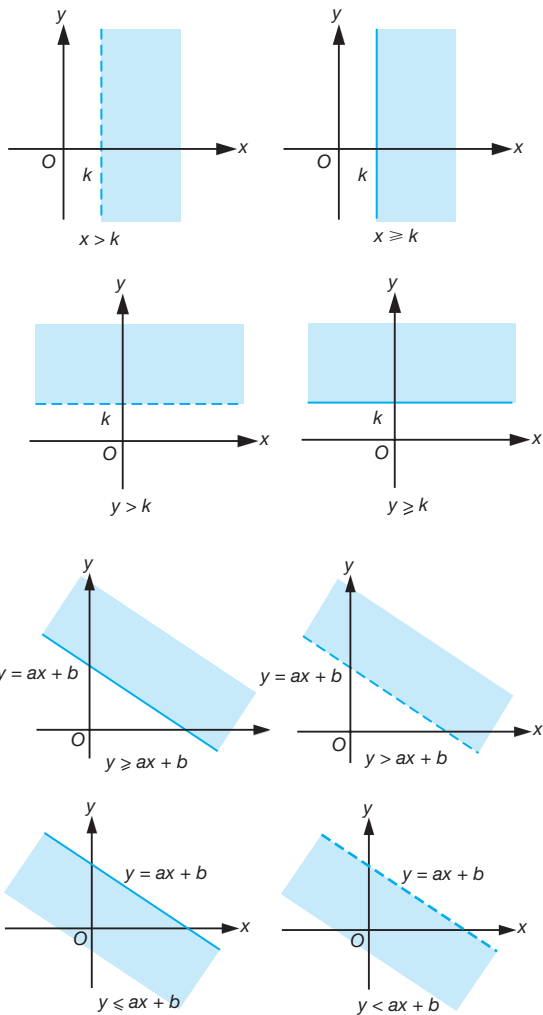
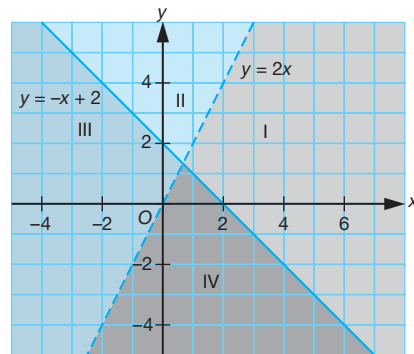


### LINEAR INEQUALITIES IN TWO VARIABLES

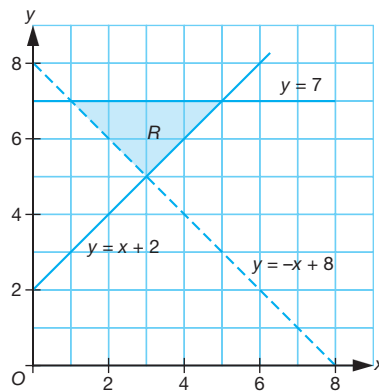
#### Linear Inequalities in Two Variables



#### System of Linear Inequalities



- $y < 2x$  and  $y \geq -x + 2$  → Region I
- $y \geq -x + 2$  and  $y > 2x$  → Region II
- $y \leq -x + 2$  and  $y > 2x$  → Region III
- $y < 2x$  and  $y \leq -x + 2$  → Region IV



The three linear inequalities that satisfy the shaded region  $R$  are  $y \leq 7$ ,  $y \geq x + 2$  and  $y > -x + 8$ .

#### Solving Problems

Solving problems involving real-life situations