Practice worksheet | Linear equations and inequalities

# Two-variable inequalities and shaded regions

Name: _____ Date: _____

6 questions | 15 marks

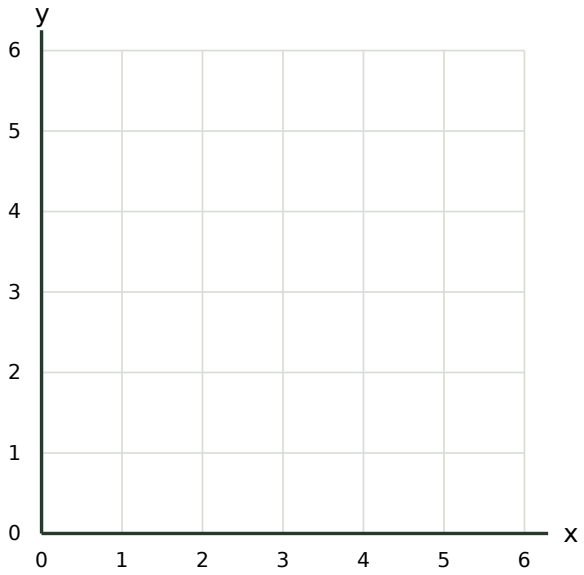
**1.** Decide whether $(3, 2)$ satisfies $2x + y \leq 9$. [2 marks]

**2.** Is the boundary of $y > 3x - 2$ solid or dashed? Which side is allowed? [2 marks]

**3.** Find the intercepts of the boundary $2x + y = 8$. [2 marks]

**4.** Give the vertices of the feasible region $x \geq 0$, $y \geq 0$, $2x + y \leq 8$. [3 marks]

**5.** On the supplied grid, shade the region $x \geq 0$, $y \geq 0$, $x + y < 5$. [3 marks]




Draw the boundary and shade the required region

**6.** A stall sells necklaces for 5 dollars and bracelets for 3 dollars. Write inequalities for buying at least 4 items using no more than 24 dollars. Define the variables. [3 marks]