Practice worksheet | Linear models and optimisation

Feasible regions

Name: _____ Date: _____

6 questions | 12 marks

1. Find vertices for $x, y \geq 0$ and $x + y \leq 6$. [2 marks]

2. Find vertices for $x, y \geq 0$, $x \leq 4$, $x + y \leq 7$. [2 marks]

3. Find where $3x + y = 15$ meets $x + y = 9$. [2 marks]

4. Is $(6, 2)$ feasible for $x + y \leq 9$ and $2x + y \leq 12$? [2 marks]

5. Is the region $x, y \geq 0$, $x + y \geq 5$ bounded? [2 marks]

6. Why do $x \geq 4$ and $x \leq 2$ produce no feasible region? [2 marks]