Practice worksheet | Linear models and optimisation

Objective functions

Name: _____ Date: _____

6 questions | 12 marks

1. A has unit revenue 35 and cost 23; B has revenue 28 and cost 19. Write profit. [2 marks]

2. Evaluate $C = 8x + 13y$ at $(4, 3)$. [2 marks]

3. At vertices $(0, 0), (8, 0), (4, 5), (0, 7)$, maximise $P = 3x + 4y$. [2 marks]

4. At vertices $(2, 3), (7, 3), (4, 6)$, minimise $C = 5x + 2y$. [2 marks]

5. Does subtracting a fixed AUD 100 change the maximiser of $P = 7x + 5y$? [2 marks]

6. Why does every point from $(0, 6)$ to $(6, 0)$ have the same $P = 2x + 2y$? [2 marks]