

7C Integer Solutions

Consider integer solutions near the optimal solution

- Recall (1/3) from 7B solutions:

Basic variable	x	y	r	s	Value
y	0	1	$\frac{2}{11}$	$-\frac{1}{11}$	$\frac{80}{11}$
x	1	0	$-\frac{3}{55}$	$\frac{7}{55}$	$\frac{42}{11}$
P	0	0	$\frac{1}{5}$	$\frac{1}{5}$	26



Point	$5x + 7y \leq 70$	$10x + 3y \leq 60$	In feasible region?	$P = 3x + 2y$
(3, 7)				
(3, 8)				
(4, 7)				
(4, 8)				

- Solve the linear programming model from example 2 in 7B

Maximise

Subject to :

Basic variable	x	y	z	r	s	Value
y	1	1	0	$\frac{1}{2}$	0	$2\frac{1}{2}$
z	$\frac{1}{2}$	0	1	$-\frac{3}{8}$	$\frac{1}{4}$	$1\frac{7}{8}$
P	6	0	0	3	2	45

Point	$2x + 2y \leq 5$	$5x + 3y + 4z \leq 15$	In feasible region?	$P = 10x + 12y + 8z$
(0, 2, 1)				
(0, 2, 2)				
(0, 3, 1)				
(0, 3, 2)				