IGCSE1 math worksheet1: Linear programming Name:

1. Draw the graphs for each of the following in the coordinate system
2. y=x (2) y=2x-1 (3) y=-x-1 (4) 2x+y=3



1. Graphing the inequality for each one, shade the part satisfies the inequality.
2. $y>x$ (2) $y<x+1$ (3) $2x+y<4$







 (4) $x\leq y+1$ (5) $y\leq -2x-2$ (6) $2y-x<4$







1. Graphing the simultaneous inequalities in a coordinate systems, shade the required part.
2. $\left\{\begin{array}{c}x\leq 2\\y>-1\\y\leq 3\end{array}\right.$



1. $\left\{\begin{array}{c}y\leq x\\y>1\\x\leq 5\end{array}\right.$ (3) $\left\{\begin{array}{c}x+y\leq 6\\y<x\\y\geq 1\end{array}\right.$ (4) $\left\{\begin{array}{c}2y\geq x+4\\y\leq 2x+2\\y<4\\x\leq 3\end{array}\right.$







1. Find the inequalities represented by the shaded part.



1. Linear programming.
2. Max $x+2y$ (2) Min y-2x (3) Max x+y

s.t. $\left\{\begin{array}{c}2x+6y\leq 9\\x\geq 0\\y\geq 0\end{array}\right.$ s.t. $\left\{\begin{array}{c}x+y\leq 10\\x\geq 2\\y\geq 2\end{array}\right.$ s.t. $\left\{\begin{array}{c}x+2y\leq 4\\4x+2y\leq 12\\-x+y\leq 1\\x\geq 0\\y\geq 0\end{array}\right.$





