## Graphing Inequalities

In this internal we are not only graphing lines that are equal, but we are wanting to graph areas that are more or less than a line to find a 'feasible region'. This is an area where all of the inequalities hold true. The first one has been done for you.

## Question 1

$4 x+3 y \leq 120$
$7 x+8 y \leq 280$
$x \geq 5$
$y \geq 10$

## Question 2


$12 x+5 y \leq 300$
$8 x+13 y \leq 520$
$x \geq 5$
$y \geq 16$

## Question 3

$14 x+9 y \leq 630$
$8 x+15 y \leq 600$
$x \geq 5$
$y \geq 10$

## Question 4

$11 x+9 y \leq 495$
$2 x+3 y \leq 120$
$x \geq 11$
$y \geq 17$

## Question 5

$18 x+5 y \leq 450$
$4 x+9 y \leq 360$
$x \geq 8$
$y \geq 16$

## Question 6

$$
\begin{aligned}
& 5 x+2 y \leq 150 \\
& 5 x+9 y \leq 450 \\
& x \geq 12 \\
& y \geq 11
\end{aligned}
$$

## Question 7

$13 x+10 y \leq 650$
$9 x+19 y \leq 855$
$x \geq 19$
$y \geq 20$

## Question 8

$3 x+2 y \leq 150$
$5 x+19 y \leq 475$
$x \geq 13$
$y \geq 7$

