

Mathematics

Solving inequalities graphically 2

Independent Task

Ms Jones



Try this

Find the points of intersection of the following lines

$$y = 3x + 7$$

$$y = 7x + 3$$

$$y = 3 - x$$



Independent task

1.
 - a) Draw $y = -2x + 4$ and $y = x + 1$ on a set of axes.
 - b) Find the point of intersection.
 - c) Use your graph to solve $-2x + 4 > x + 1$

2.
 - a) Draw $y = 3x + 4$ and $x + y = -4$ on a set of axes.
 - b) Find the point of intersection.
 - c) Use your graph to solve $3x + 4 < -x - 4$

3. Use a graph to solve $-4x + 3 \geq -2x - 1$.



Explore

Use your graph of $y = 3x + 7$, $y = 7x + 3$, and $y = 3 - x$ from the Try This task to find the range of solutions for which:

1) $7x + 3 > 3 - x$

2) $3x + 7 < 3 - x$

3) $3 - x < 3x + 7$

4) $3x + 7 < 7x + 3$

