

Check Your Understanding

Graphing Lines, Linear Systems, Linear Inequalities, Systems of Inequalities

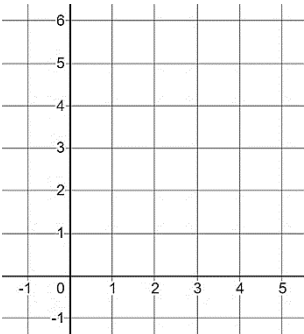
The table below identifies the key concepts from this unit.

1. Check your understanding by completing these questions.
2. Check your answers in the key provided.
3. In the table below, highlight the questions you got correct.
4. Ask peers/Dr. James about concepts where you can improve.

Key Concepts	Basic Questions	Intermediate Questions	Advanced Questions
Graphing Lines	1	2	3
Graphing Linear Systems	4	5	6
Graphing Linear Inequalities	7	8	9
Graphing Systems of Linear Inequalities	10, 11	12, 13	14, 15

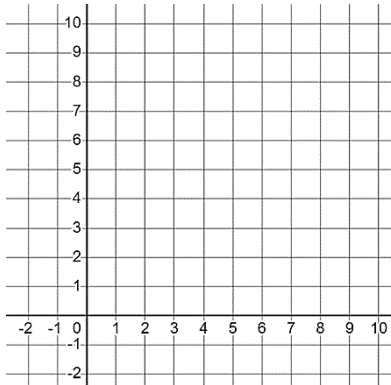
1) Graph the line:

$$y = \frac{1}{3}x + 2$$



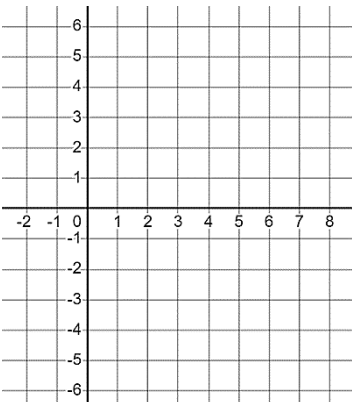
2) Graph the line:

$$y = -2x + 8$$



3) Graph the line:

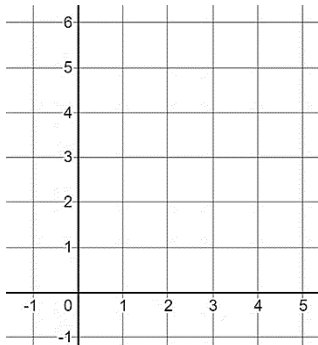
$$2x - 3y = 12$$



4) Graph the system:

$$y = \frac{2}{3}x + 1$$

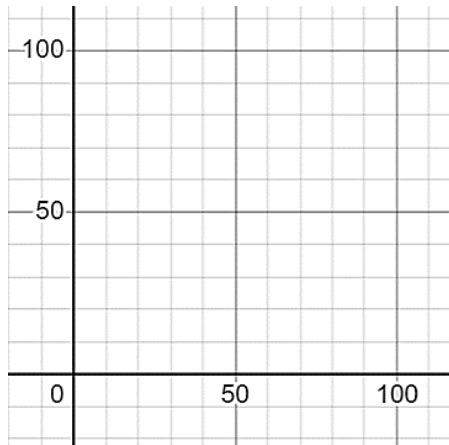
$$y = -\frac{1}{2}x + 5$$



5) Graph the system:

$$x + y = 80$$

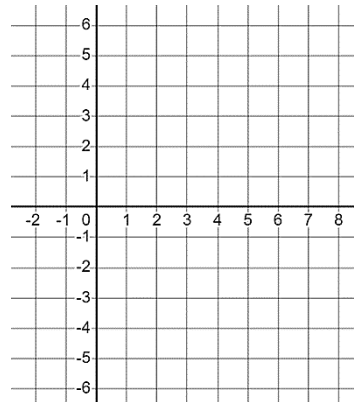
$$x = 30$$



6) Graph the system:

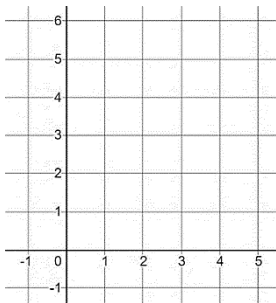
$$3x = 12 - 4y$$

$$2y + 8 = x$$



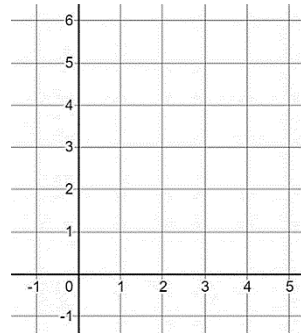
7) Graph the inequality:

$$y \geq \frac{2}{3}x + 1$$



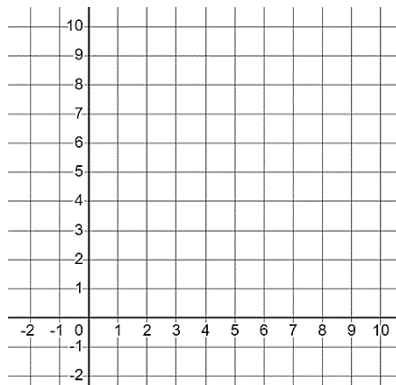
8) Graph the inequality:

$$x + y < 4$$



9) Graph the inequality:

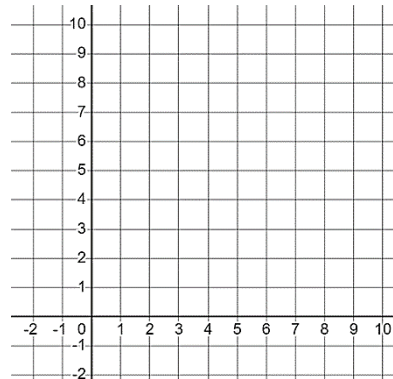
$$2x - 4y \geq -20$$



10) Graph the system of inequalities and highlight the solution:

$$y \leq -\frac{1}{3}x + 6$$

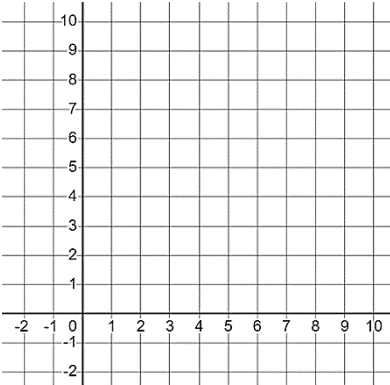
$$y \geq \frac{2}{5}x - 1$$



11) Graph the system of inequalities and highlight the solution:

$$y < 2x + 3$$

$$y \leq 8$$



12) Graph the system of inequalities and highlight the solution:

$$x + y \leq 80$$

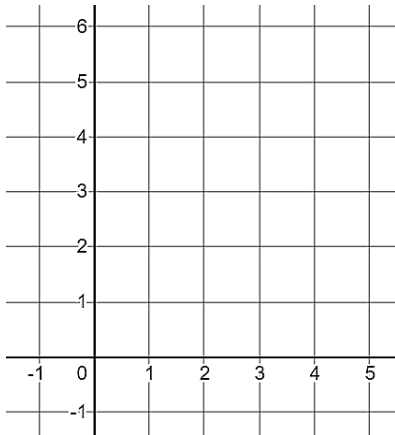
$$x \geq 40$$



13) Graph the system of inequalities and highlight the solution:

$$\frac{1}{2}y \leq x$$

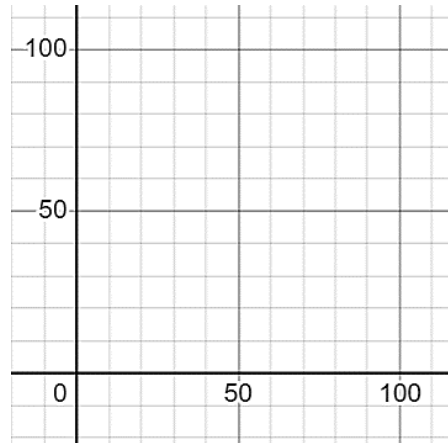
$$x + y \geq 5$$



14) Graph the system of inequalities and highlight the solution:

$$3x - 2y \geq -20$$

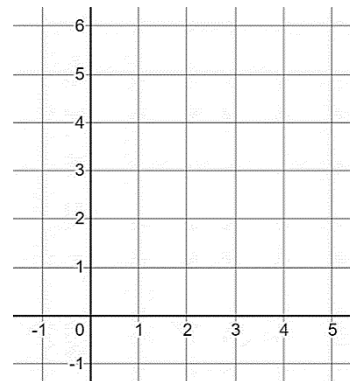
$$x \leq \frac{1}{2}y$$



15) Graph the system of inequalities and highlight the solution:

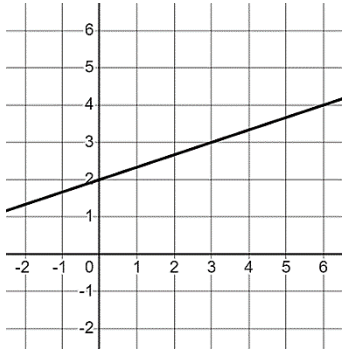
$$2x + 8 \leq 4y$$

$$2 \leq x$$

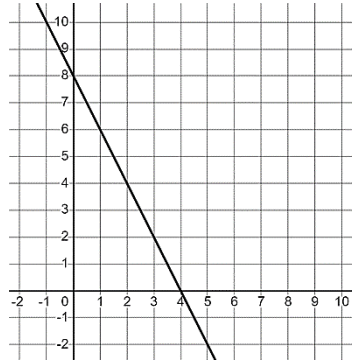


Answers

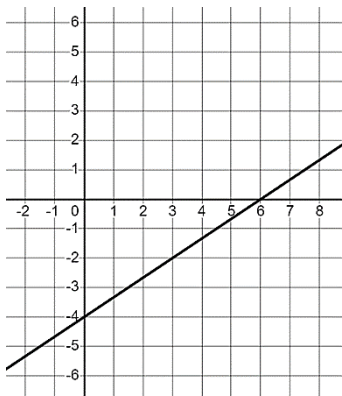
1)



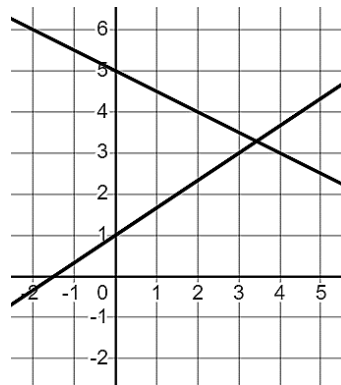
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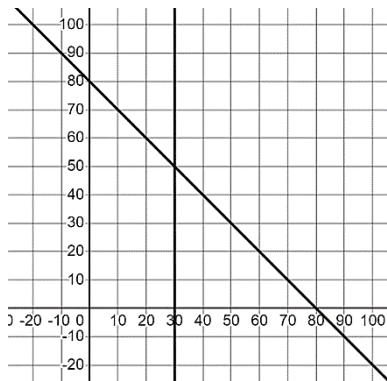
3)



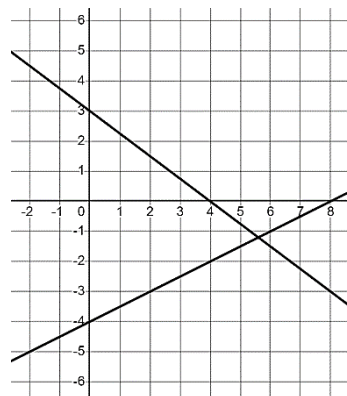
4)



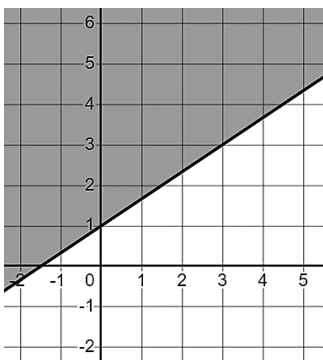
5)



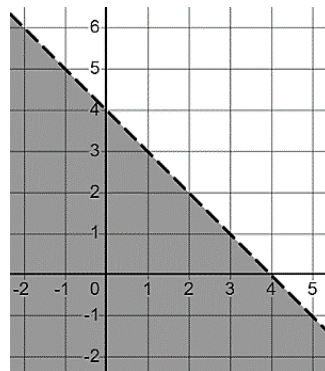
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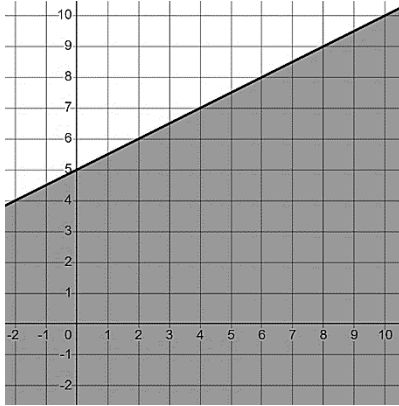
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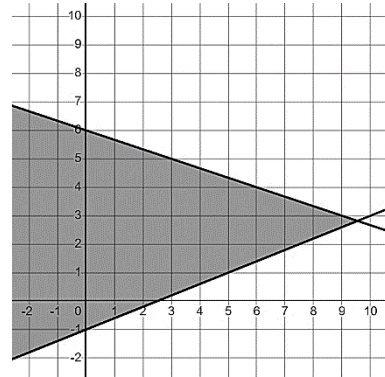
8)



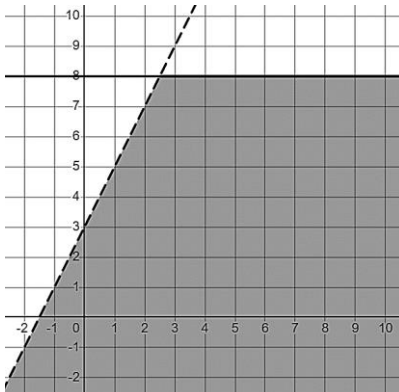
9)



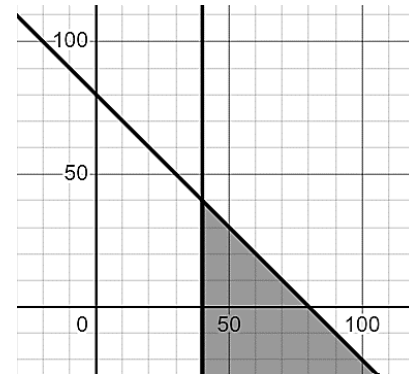
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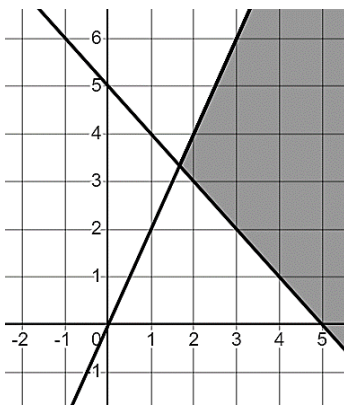
11)



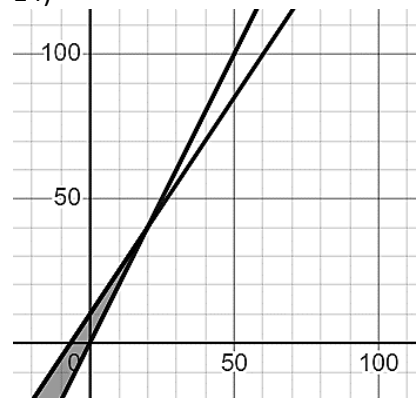
12)



13)



14)



15)

