**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.

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| **Question 1**  4x + 3y ≤ 120  7x + 8y ≤ 280  x ≥ 5  y ≥ 10 |  |
| **Question 2**  10x + 9y ≤ 450  3x + 8y ≤ 240  x ≥ 11  y ≥ 18 |  |
| **Question 3**  5x + 3y ≤ 300  7x + 9y ≤ 630  x ≥ 10  y ≥ 8 |  |
| **Question 4**  16x + 15y ≤ 1200  7x + 19y ≤ 665  x ≥ 20  y ≥ 5 |  |

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| **Question 5**  11x + 14y ≤ 770  9x + 20y ≤ 900  x ≥ 16  y ≥ 20 |  |
| **Question 6**  17x + 8y ≤ 680  9x + 13y ≤ 585  x ≥ 7  y ≥ 17 |  |
| **Question 7**  13x + 5y ≤ 325  8x + 15y ≤ 600  x ≥ 10  y ≥ 9 |  |
| **Question 8**  17x + 4y ≤ 340  3x + 5y ≤ 150  x ≥ 5  y ≥ 19 |  |

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| **Question 9**  17x + 5y ≤ 425  8x + 15y ≤ 600  x ≥ 9  y ≥ 15 |  |
| **Question 10**  17x + 6y ≤ 510  12x + 11y ≤ 660  x ≥ 6  y ≥ 11 |  |
| **Question 11**  17x + 13y ≤ 1105  13x + 16y ≤ 1040  x ≥ 12  y ≥ 10 |  |
| **Question 12**  19x + 7y ≤ 665  3x + 5y ≤ 150  x ≥ 12  y ≥ 11 |  |

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| **Question 13**  18x + 11y ≤ 990  12x + 13y ≤ 780  x ≥ 9  y ≥ 15 |  |
| **Question 14**  3x + y ≤ 75  4x + 11y ≤ 220  x ≥ 17  y ≥ 8 |  |
| **Question 15**  17x + 10y ≤ 850  11x + 12y ≤ 660  x ≥ 12  y ≥ 7 |  |
| **Question 16**  13x + 5y ≤ 325  x + 3y ≤ 60  x ≥ 14  y ≥ 6 |  |