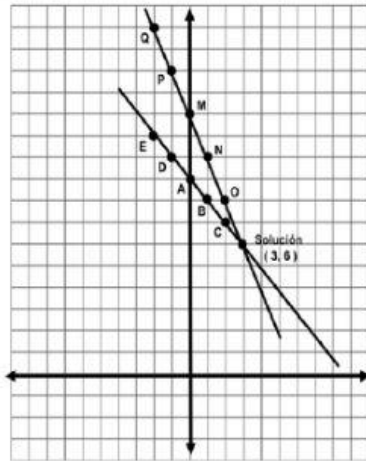


## Identificación de los métodos de solución de los sistemas de ecuaciones

I. Observa los siguientes problemas sobre sistemas de ecuaciones e identifica que método se aplicó a cada uno de ellos.

| <p>Sistema:</p> $s = 49 - 4m$ $s = 73 - 7m$ $49 - 4m = 73 - 7m$ $-4m + 7m = 73 - 49$ $3m = 24$ $m = 24 / 3$ $m = 8$ $s + 4m = 49$ $s + 4(8) = 49$ $s + 32 = 49$ $s = 49 - 32$ $s = 17$                 | <p>Sistema:</p> $a + b = 7500$ $b = a + 1800$ <p>Simplificación:</p> $a + b = 7500$ $a + (a + 1800) = 7500$ $2a + 1800 = 7500$ $2a = 7500 - 1800$ $2a = 5700$ $a = 5700 / 2$ $a = 2850$ $b = a + 1800$ $b = 2850 + 1800$ $b = 4650$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|--|--------|---|---|---|---|---|---|---|---|---|---|---|---|----|----|---|----|----|---------------|--|--|--------|---|---|---|---|----|---|---|----|---|---|---|---|----|----|---|----|----|
| ¿Qué método se uso?                                                                                                                                                                                    | ¿Qué método se uso?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| <p>Sistema:</p> $x + y = 195$ $2x - y = 60$ <p>Simplificación:</p> $x + y = 195$ $2x - y = 60$ <p>-----</p> $3x = 255$<br>$x = 255 / 3$ $x = 85$ $x + y = 195$ $85 + y = 195$ $y = 195 - 85$ $y = 110$ | <p>Sistema</p> $x + y = 9$ $10x + 5y = 60$ <p>Para graficar una ecuación se recomienda despejar una de las dos variables, y asignarle algunos valores: la que no se despejó. A esto se le llama tabulación.</p> $x + y = 9 \quad \text{--- (1)}$ $10x + 5y = 60 \quad \text{--- (2)}$ <p>Se despeja y en ambas ecuaciones:</p> $y = 9 - x$ $y = \frac{60 - 10x}{5}$ $y = 12 - 2x$ <p>Tabulamos ambos despejes:</p> <table><tr><th colspan="3"><math>y = 9 - x</math></th></tr><tr><th>Puntos</th><th>x</th><th>y</th></tr><tr><td>A</td><td>0</td><td>9</td></tr><tr><td>B</td><td>1</td><td>8</td></tr><tr><td>C</td><td>2</td><td>7</td></tr><tr><td>D</td><td>-1</td><td>10</td></tr><tr><td>E</td><td>-2</td><td>11</td></tr></table> <table><tr><th colspan="3"><math>y = 12 - 2x</math></th></tr><tr><th>Puntos</th><th>x</th><th>y</th></tr><tr><td>M</td><td>0</td><td>12</td></tr><tr><td>N</td><td>1</td><td>10</td></tr><tr><td>O</td><td>2</td><td>8</td></tr><tr><td>P</td><td>-1</td><td>14</td></tr><tr><td>Q</td><td>-2</td><td>16</td></tr></table> <p>Se localiza en el plano cartesiano las coordenadas de los puntos:</p>  <p>El punto de intersección de las dos rectas trazadas es la solución del sistema:</p> $x = 3$ $y = 6$ | $y = 9 - x$ |  |  | Puntos | x | y | A | 0 | 9 | B | 1 | 8 | C | 2 | 7 | D | -1 | 10 | E | -2 | 11 | $y = 12 - 2x$ |  |  | Puntos | x | y | M | 0 | 12 | N | 1 | 10 | O | 2 | 8 | P | -1 | 14 | Q | -2 | 16 |
| $y = 9 - x$                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| Puntos                                                                                                                                                                                                 | x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | y           |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| A                                                                                                                                                                                                      | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 9           |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| B                                                                                                                                                                                                      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 8           |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| C                                                                                                                                                                                                      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 7           |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| D                                                                                                                                                                                                      | -1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 10          |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| E                                                                                                                                                                                                      | -2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 11          |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| $y = 12 - 2x$                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| Puntos                                                                                                                                                                                                 | x                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | y           |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| M                                                                                                                                                                                                      | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12          |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| N                                                                                                                                                                                                      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10          |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| O                                                                                                                                                                                                      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 8           |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| P                                                                                                                                                                                                      | -1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 14          |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| Q                                                                                                                                                                                                      | -2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 16          |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |
| ¿Qué método se uso?                                                                                                                                                                                    | ¿Qué método se uso?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |    |    |               |  |  |        |   |   |   |   |    |   |   |    |   |   |   |   |    |    |   |    |    |