## Sort It Out

## Linear Simultaneous Equations

Sort these pairs of simultaneous equations into four categories, choosing for each pair the most efficient method for solving. Then solve each pair of simultaneous equations...

| $\mathbf{1}$ | $x+2 y=7$ <br> $4 x-2 y=8$ | $\mathbf{2}$ | $x+5 y=13$ <br> $x+7 y=19$ | $\mathbf{3}$ | $x-3 y=2$ <br> $4 x-3 y=17$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{4}$ | $5 x+2 y=11$ <br> $6 x+2 y=13$ | $\mathbf{5}$ | $2 x+7 y=29$ <br> $x+3 y=13$ | $\mathbf{6}$ | $2 x+y=8$ <br> $9 x-2 y=49$ |
| $\mathbf{7}$ | $3 x+4 y=17$ <br> $3 x+2 y=25$ | $\mathbf{8}$ | $2 x-3 y=11$ <br> $5 x+6 y=14$ | $\mathbf{9}$ | $-2 x+3 y=-7$ <br> $x-8 y=10$ |
| $\mathbf{1 0}$ | $5 x+2 y=-5$ <br> $-5 x-3 y=10$ | $\mathbf{1 1}$ | $3 x+2 y=12$ <br> $-x+11 y=31$ | $\mathbf{1 2}$ | $5 x+3 y=6$ <br> $9 x+y=24$ |
| $\mathbf{1 3}$ | $2 x-5 y=2$ <br> $3 x-7 y=4$ | $\mathbf{1 4}$ | $4 x+3 y=11$ <br> $7 x-2 y=-17$ | $\mathbf{1 5}$ | $11 x-4 y=8.5$ <br> $6 x-3 y=3$ |


| A | Match up the $x$ coefficients <br> and add the equations | B | Match up the $x$ coefficients <br> and subtract the equations |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| C | Match up the $y$ coefficients <br> and add the equations | D | Match up the $y$ coefficients <br> and subtract the equations |
|  |  |  |  |

