| Question | $\begin{gathered} x+y=5 \\ 2 x+4 y=18 \end{gathered}$ | $\begin{aligned} & 2 x-y=8 \\ & 7 x+3 y=41 \end{aligned}$ | $\begin{aligned} & 2 x+3 y=11 \\ & 4 x+8 y=28 \end{aligned}$ | $\begin{aligned} & 3 x-2 y=7 \\ & 4 x+4 y=36 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Scale | $\begin{array}{r} x+y=5 \\ 2 x+4 y=18 \end{array} \xrightarrow{\times 2} 2 x+2 y=10$ | $\begin{array}{\|ll} \hline 2 x-y=8 \xrightarrow{\times 3} & 6 x-3 y=24 \\ 7 x+3 y=41 & 7 x+3 y=41 \end{array}$ |  | $\begin{array}{ll} 3 x-2 y=7 \xrightarrow{\times 2} & 6 x-4 y=14 \\ 4 x+4 y=36 & 4 x+4 y=36 \end{array}$ |
| Make sure you have zero pairs | $\begin{array}{rr} 2 x-2 y= & -10 \\ 2 x+4 y= & 18 \\ \hline 2 y=8 \end{array}$ | $\begin{aligned} & 6 x-3 y=24 \\ & 7 x y=41 \\ & \hline 13 x=65 \end{aligned}$ | $\begin{array}{rr} 4 x-6 y= & -22 \\ 4 x+8 y= & 28 \\ \hline 2 y= & 6 \end{array}$ | $\begin{aligned} & 6 x-4 y=14 \\ & 4 x+4 y=36 \\ & \hline 10 x=50 \end{aligned}$ |
| Solve for first variable | $\div 2\left(\begin{array}{ll} 2 y & =8 \\ y & =4 \end{array}\right) \div 2$ | $\div 13\left(\begin{array}{ll} 13 x & =65 \\ x & =5 \end{array}\right) \div 13$ | $\div 2\left(\begin{array}{cc} 2 y & =6 \\ y & =3 \end{array}\right) \div 2$ | $10 x=50$ |
| Substitute into either equation | $\begin{aligned} & x+y=5 \\ & x+(4)=5 \end{aligned} \quad y=4$ | $\begin{array}{lll} 2 x & -y=8 & x=5 \\ 2 \times(5)-y=8 & \\ 10 & -y=8 & \end{array}$ | $\begin{array}{lll} 2 x+3 y & =11 \quad y=3 \\ 2 x+3 \times(3) & =11 \\ 2 x+9 & =11 \end{array}$ |  |
| Solve for second variable | $-4\binom{x+4=5}{x=1}-4$ | $10-y=8$ |  |  |
| Check |  |  |  |  |


| Question | $\begin{gathered} x+2 y=7 \\ 3 x+8 y=23 \end{gathered}$ | $\begin{aligned} & 5 x+2 y=41 \\ & 2 x-4 y=2 \end{aligned}$ | $\begin{array}{r} x+3 y=13 \\ 2 x+8 y=32 \end{array}$ | $\begin{aligned} & 2 x+3 y=16 \\ & 7 x-12 y=11 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Scale | $\begin{array}{r} x+2 y=7 \\ 3 x+8 y=23 \end{array} \xrightarrow{\times 3} \begin{array}{r} 3 x+6 y=21 \\ 3 x+8 y=23 \end{array}$ | $\begin{aligned} & 5 x+2 y=41 \xrightarrow{\times 2} 10 x+4 y=82 \\ & 2 x-4 y=2 \\ & 2 x-4 y=2 \end{aligned}$ | $\begin{array}{r} x+3 y=13 \xrightarrow{\times 2} 2 x+6 y=26 \\ 2 x+8 y=32 \end{array} \begin{array}{r} 2 x+8 y=32 \end{array}$ | $\begin{aligned} & 2 x+3 y=16 \xrightarrow{\longrightarrow} \\ & 7 x-12 y=11 \end{aligned}$ |
| Make sure you have zero pairs | $\begin{aligned} -3 x-6 y & =-21 \\ 3 x+8 y & =23 \\ \hline 2 y= & 2 \end{aligned}$ | $\begin{array}{r} 10 x+4 y=82 \\ 2 x-4 \sigma=2 \end{array}$ |  |  |
| Solve for first variable |  |  |  |  |
| Substitute into either equation |  |  |  |  |
| Solve for second variable |  |  |  |  |
| Check |  |  |  |  |


| Question | $2 x+7 y=34$ <br> $3 x+2 y=17$ | $2 x+5 y=24$ <br> $3 x+7 y=34$ | $3 x+2 y=-8$ <br> $4 x+5 y=-13$ | $3 x+5 y=51$ <br> $7 x+2 y=61$ |
| :--- | :--- | :--- | :--- | :--- |
| Scale | $2 x+7 y=34 \xrightarrow{\times 3} 6 x+21 y=102$ <br> $3 x+2 y=17 \underset{\times 2}{ } 6 x+4 y=34$ | $2 x+5 y=24 \times 3$ <br> $3 x+7 y=34$ <br> $\times 2$ |  |  |
| Make sure <br> you have <br> zero pairs | $-6 x-21 y=-102$ <br> $-6 x+4 y=34$ |  |  |  |
| Solve for <br> first variable |  |  |  |  |
| Substitute <br> into either <br> equation |  |  |  |  |
| Solve for <br> second <br> variable |  |  |  |  |
| Check |  |  |  |  |

