|  |  |
| --- | --- |
| **Odd One Out** | **Introduction to Matrices** |

Work out each of the answers. Colour in the odd one out on each row.

|  |  |  |  |
| --- | --- | --- | --- |
| **A** | $$\left(\begin{matrix}-3\\4\end{matrix}\right)+\left(\begin{matrix}5\\-1\end{matrix}\right)$$ | $$\left(\begin{matrix}5\\-1\end{matrix}\right)-\left(\begin{matrix}-3\\4\end{matrix}\right)$$ | $$\left(\begin{matrix}5\\-1\end{matrix}\right)+\left(\begin{matrix}-3\\4\end{matrix}\right)$$ |
| **B** | $$\left(\begin{matrix}8\\0\end{matrix}\right)+\left(\begin{matrix}-2\\3\end{matrix}\right)$$ | $$\left(\begin{matrix}8\\0\end{matrix}\right)+\left(\begin{matrix}-2&3\end{matrix}\right)$$ | $$\left(\begin{matrix}8&0\end{matrix}\right)+\left(\begin{matrix}-2\\3\end{matrix}\right)$$ |
| **C** | $$\left(\begin{matrix}0\\-1\end{matrix}\right)+4\left(\begin{matrix}-2\\1\end{matrix}\right)$$ | $$3\left(\begin{matrix}-5\\2\end{matrix}\right)-\left(\begin{matrix}-7\\1\end{matrix}\right)$$ | $$\left(\begin{matrix}-3\\6\end{matrix}\right)-\frac{1}{2}\left(\begin{matrix}10\\2\end{matrix}\right)$$ |
| **D** | $$5\left(\begin{matrix}-3\\1\end{matrix}\right)+\left(\begin{matrix}11\\4\end{matrix}\right)$$ | $$\left(\begin{matrix}6\\3\end{matrix}\right)+\left(\begin{matrix}1\\5\end{matrix}\right)-\left(\begin{matrix}11\\-1\end{matrix}\right)$$ | $$\left(\begin{matrix}2\\1\end{matrix}\right)-2\left(\begin{matrix}3\\4\end{matrix}\right)$$ |
| **E** | $$\left(\begin{matrix}-1\\0\\4\end{matrix}\right)+3\left(\begin{matrix}2\\-2\\1\end{matrix}\right)$$ | $$\left(\begin{matrix}1\\2\\3\end{matrix}\right)-\left(\begin{matrix}6\\-4\\10\end{matrix}\right)$$ | $$2\left(\begin{matrix}2\\-3\\-2\end{matrix}\right)+3\left(\begin{matrix}-3\\4\\-1\end{matrix}\right)$$ |
| **F** | $$4\left(\begin{matrix}-2&1\\0&5\end{matrix}\right)$$ | $$\left(\begin{matrix}11&0\\-4&7\end{matrix}\right)-\left(\begin{matrix}-3&1\\4&2\end{matrix}\right)$$ | $$\left(\begin{matrix}0&-3\\-1&11\end{matrix}\right)+\left(\begin{matrix}-8&7\\1&9\end{matrix}\right)$$ |
| **G** | $$\left(\begin{matrix}7&-1\\0&-2\end{matrix}\right)-\left(\begin{matrix}9&3\\4&-5\end{matrix}\right)$$ | $$-2\left(\begin{matrix}1&2\\-2&-5\end{matrix}\right)$$ | $$\left(\begin{matrix}-3&2\\-1&3\end{matrix}\right)+\left(\begin{matrix}1&-6\\5&7\end{matrix}\right)$$ |
| **H** | $$\frac{1}{2}\left(\begin{matrix}6&-3\\12&9\end{matrix}\right)$$ | $$-\frac{3}{2}\left(\begin{matrix}-2&1\\-4&-3\end{matrix}\right)$$ | $$\frac{3}{2}\left(\begin{matrix}3&-2\\-3&1\end{matrix}\right)$$ |
| **I** | $$-5\left(\begin{matrix}1&0\\2&4\end{matrix}\right)+\left(\begin{matrix}-2&2\\6&-1\end{matrix}\right)$$ | $$4\left(\begin{matrix}1&2\\0&7\end{matrix}\right)+3\left(\begin{matrix}-1&2\\-3&-1\end{matrix}\right)$$ | $$3\left(\begin{matrix}-1&2\\-3&5\end{matrix}\right)-2\left(\begin{matrix}-2&-4\\0&-5\end{matrix}\right)$$ |
| **J** | $$2\left(\begin{matrix}3&-3\\-1&-2\end{matrix}\right)+I\_{2}$$ | $$\left(\begin{matrix}4&-6\\2&0\end{matrix}\right)-3I\_{2}$$ | $$5I\_{2}-2\left(\begin{matrix}-1&3\\1&4\end{matrix}\right)$$ |