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| **Adding and Subtracting Vectors** |
| **(a)** | **(b)** | **(c)** |
| The vectors $a$and $b$ are shown. Draw the vector $a+b$. | The vectors $c$and $-d$ are shown. Draw the vector $c+(-d)$. |  | The vectors $a, b$and $-b$ are shown. Draw the vectors(i) $a+b $ (ii) $a+(-b)$. |
| **(d)** | **(e)** | **(f)** |
|  | $c=\left(\begin{matrix}1\\3\end{matrix}\right)$ $d=\left(\begin{matrix}4\\-1\end{matrix}\right)$Draw the vector $c+d$ and find its column vector. |  | $a=\left(\begin{matrix}5\\2\end{matrix}\right)$ $b=\left(\begin{matrix}2\\1\end{matrix}\right)$Draw the vector $a-b$ and find its column vector. | $e=\left(\begin{matrix}7\\1\end{matrix}\right)$ $f=\left(\begin{matrix}-3\\4\end{matrix}\right)$Find $e+f$ |
| **(g)** | **(h)** | **(i)** | **(j)** |
| $c=\left(\begin{matrix}-2\\5\end{matrix}\right)$ $d=\left(\begin{matrix}1\\4\end{matrix}\right)$Find $c-d$ | $$a=\left(\begin{matrix}0\\4\end{matrix}\right) b=\left(\begin{matrix}6\\-3\end{matrix}\right)$$Find $b-a$ | $e=\left(\begin{matrix}-6\\1\end{matrix}\right)$ $f=\left(\begin{matrix}2\\-1\end{matrix}\right)$Find $-e+f$ | $a=\left(\begin{matrix}8\\0\end{matrix}\right)$ $b=\left(\begin{matrix}-2\\-5\end{matrix}\right) c=\left(\begin{matrix}-3\\7\end{matrix}\right)$Find (i) $a+b+c$ (ii) $a+b-c$ (iii) $a-b-c$  |