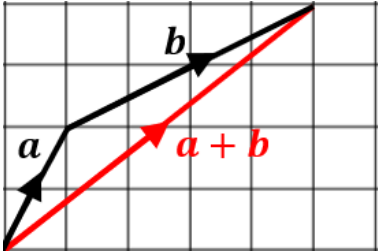
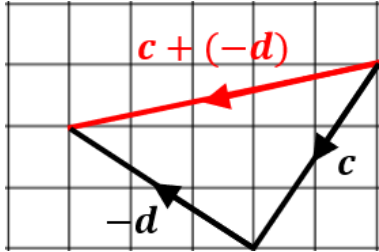
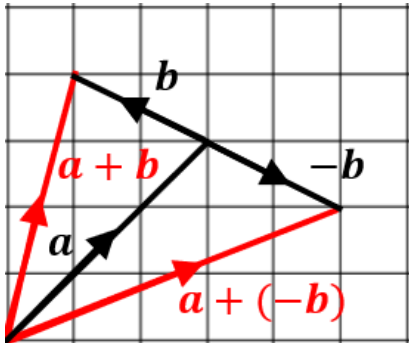
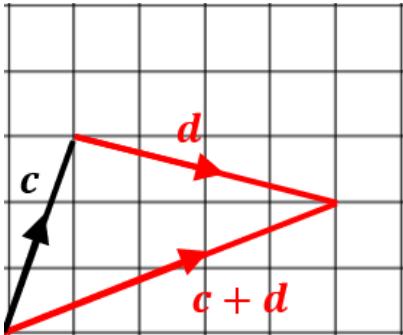
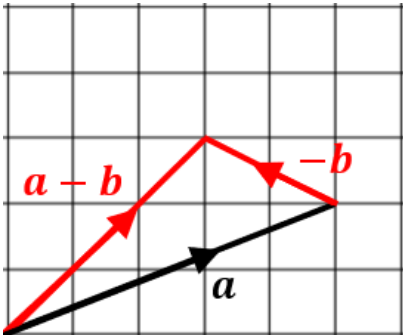


Adding and Subtracting Vectors

Adding and Subtracting Vectors			
(a)	(b)	(c)	
<p>The vectors a and b are shown. Draw the vector $a + b$.</p> 	<p>The vectors c and $-d$ are shown. Draw the vector $c + (-d)$.</p> 	<p>The vectors a, b and $-b$ are shown. Draw the vectors (i) $a + b$ (ii) $a + (-b)$.</p> 	
(d)	(e)	(f)	
	<p>$c = \begin{pmatrix} 1 \\ 3 \end{pmatrix}$ $d = \begin{pmatrix} 4 \\ -1 \end{pmatrix}$</p> <p>Draw the vector $c + d$ and find its column vector.</p> <p style="text-align: center;">$\begin{pmatrix} 5 \\ 2 \end{pmatrix}$</p>		<p>$a = \begin{pmatrix} 5 \\ 2 \end{pmatrix}$ $b = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$</p> <p>Draw the vector $a - b$ and find its column vector.</p> <p style="text-align: center;">$\begin{pmatrix} 3 \\ 3 \end{pmatrix}$</p>
<p>$e = \begin{pmatrix} 7 \\ 1 \end{pmatrix}$ $f = \begin{pmatrix} -3 \\ 4 \end{pmatrix}$</p> <p>Find $e + f$</p> <p style="text-align: center;">$\begin{pmatrix} 4 \\ 5 \end{pmatrix}$</p>			
(g)	(h)	(i)	(j)
<p>$c = \begin{pmatrix} -2 \\ 5 \end{pmatrix}$ $d = \begin{pmatrix} 1 \\ 4 \end{pmatrix}$</p> <p>Find $c - d$</p> <p style="text-align: center;">$\begin{pmatrix} -3 \\ 1 \end{pmatrix}$</p>	<p>$a = \begin{pmatrix} 0 \\ 4 \end{pmatrix}$ $b = \begin{pmatrix} 6 \\ -3 \end{pmatrix}$</p> <p>Find $b - a$</p> <p style="text-align: center;">$\begin{pmatrix} 6 \\ -7 \end{pmatrix}$</p>	<p>$e = \begin{pmatrix} -6 \\ 1 \end{pmatrix}$ $f = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$</p> <p>Find $-e + f$</p> <p style="text-align: center;">$\begin{pmatrix} 8 \\ -2 \end{pmatrix}$</p>	<p>$a = \begin{pmatrix} 8 \\ 0 \end{pmatrix}$ $b = \begin{pmatrix} -2 \\ -5 \end{pmatrix}$ $c = \begin{pmatrix} -3 \\ 7 \end{pmatrix}$</p> <p>Find (i) $a + b + c$ (ii) $a + b - c$ (iii) $a - b - c$</p> <p style="text-align: center;">$\begin{pmatrix} 3 \\ 2 \end{pmatrix}$ $\begin{pmatrix} 9 \\ -12 \end{pmatrix}$ $\begin{pmatrix} 13 \\ -2 \end{pmatrix}$</p>