

$\vec{v} \leftrightarrow \vec{v}$	Vector conversions					
g-shift	$\mathbb{C} \rightarrow \vec{v}_2$	$\vec{v}_2 \rightarrow \mathbb{C}$	$V \rightarrow R_{nn}$	$R_{nn} \rightarrow V$	3DPHYS $\square$	3Dxyz $\square$
f-shift	$yx \leftrightarrow \vec{v}_2$		$zyx \leftrightarrow \vec{v}_3$		$tzyx \leftrightarrow \vec{v}_4$	
unshifted	$yx \rightarrow \vec{v}_2$	$\vec{v}_2 \rightarrow yx$	$zyx \rightarrow \vec{v}_3$	$\vec{v}_3 \rightarrow zyx$	$tzyx \rightarrow \vec{v}_4$	$\vec{v}_4 \rightarrow tzyx$
Page 1	F1	F2	F3	F4	F5	F6

Prev menu https://47calc.com/doc/C47/Menus/C47_Menu_Chi2_page_1.pdf

Next menu https://47calc.com/doc/C47/Menus/C47_Menu_Arrow_page_1.pdf

Ref 1 https://47calc.com/doc/C47/Reference/C47_Vector_display.pdf

Level	Label	Type	FullName	Extended description	Category	Flag	Catalog	Default
Menu p1	$\vec{v} \leftarrow \rightarrow \vec{v}$	MENU	Vector conversions	Vector conversion functions ; Ref : https://47calc.com/doc/C47/Reference/C47_Vector_display.pdf ; Info : Vectors are stored internally as rectangular and calculation results are presented in rectangular format ; to edit a vector, first put it in rectangular format ; vector TI's are shown for values in X only and a small font may be used ; vector TI's are minimised if the stack changes or [EXIT] is pressed (only ijk or rθk or pθφ is shown, without subscripts or brackets)	Vector operations		$\vec{v} \leftarrow \rightarrow \vec{v}$	
F1	$yx \rightarrow \vec{v}_2$	Function (dyadic)	Compose 1x2 vector	Compose 1x2 vector from Y, X ; tagged angles in the input will be recognized and the appropriate coordinate tag will be applied to the vector ; Info : Display depends on flag 3Dxyz, for rectangular vector : [ij] [v ₁ v ₂] ; polar vector : [rθ _i] [v ₁ v ₂] ^p	Vector operations	3Dxyz	$yx \rightarrow \vec{v}_2$	
F2	$\vec{v}_2 \rightarrow yx$	Function (monadic)	Decompose 1x2 vector	Decompose 1x2 vector to Y, X ; Info : Display depends on flag 3Dxyz, for rectangular elements : [i]= ; [j]= ; polar elements : [r]= ; [θ _i]=	Vector operations	3Dxyz	$\vec{v}_2 \rightarrow yx$	
F3	$zyx \rightarrow \vec{v}_3$	Function (triadic)	Compose 1x3 vector	Compose 1x3 vector from Z, Y, X, according to Physics or Math conventions (for spherical polar vectors) as set by flag 3DPHYS (default CLEAR) ; tagged angles in the input will be recognized and the appropriate coordinate tag will be applied to the vector ; Info : Display depends on flag 3Dxyz, for rectangular vector : [ijk] [v ₁ v ₂ v ₃] ; spherical vector : [pθ _i φ _k] _M [v ₁ v ₂ v ₃] ^s ; cylindrical vector : [rθ _i jk] [v ₁ v ₂ v ₃] ^c ; in Program Entry Mode, flag 3DPHYS determines whether $zyx \rightarrow \vec{v}_3$ _M or $zyx \rightarrow \vec{v}_3$ _P is stored ; notation convention is indicated by the TI subscript of the spherical polar vector : p for Physics, M for Math (determines ordering of vector elements, works on whole stack)	Vector operations	3Dxyz	$zyx \rightarrow \vec{v}_3$	
F4	$\vec{v}_3 \rightarrow zyx$	Function (monadic)	Decompose 1x3 vector	Decompose 1x3 vector to Z, Y, X, according to Physics or Math conventions (for spherical polar vectors) as set by flag 3DPHYS (default CLEAR) ; Info : Display depends on flag 3Dxyz, for rectangular elements : [i]= ; [j]= ; [k]= ; spherical elements : [p]= ; [θ _i]= ; [φ _k]= ; cylindrical elements : [r]= ; [θ _i]= ; [k]= ; in Program Entry Mode, flag 3DPHYS determines whether $\vec{v}_3 \rightarrow zyx$ _M or $\vec{v}_3 \rightarrow zyx$ _P is stored	Vector operations	3Dxyz	$\vec{v}_3 \rightarrow zyx$	
F5	$tzyx \rightarrow \vec{v}_4$	Function (tetradic)	Compose 1x4 vector	Compose 1x4 vector from T, Z, Y, X	Vector operations		$tzyx \rightarrow \vec{v}_4$	
F6	$\vec{v}_4 \rightarrow tzyx$	Function (monadic)	Decompose 1x4 vector	Decompose 1x4 vector to T, Z, Y, X	Vector operations		$\vec{v}_4 \rightarrow tzyx$	
fF1	$yx \leftrightarrow \vec{v}_2$	Function (dyadic, nonpgm)	Compose/decompose 1x2 vector	Compose/decompose 1x2 vector from/to Y, X ; tagged angles in the input will be recognized and the appropriate coordinate tag will be applied to the vector ; Info : Display depends on flag 3Dxyz, for rectangular vector : [ij] [v ₁ v ₂] ; rectangular elements : [i]= ; [j]= ; polar vector : [rθ _i] [v ₁ v ₂] ^p ; polar elements : [r]= ; [θ _i]=	Vector operations	3Dxyz	$yx \leftrightarrow \vec{v}_2$	
fF2								
fF3	$zyx \leftrightarrow \vec{v}_3$	Function (triadic, nonpgm)	Compose/decompose 1x3 vector	Compose/decompose 1x3 vector from/to Z, Y, X, according to Physics or Math conventions (for spherical polar vectors) as set by flag 3DPHYS (default CLEAR) ; tagged angles in the input will be recognized and the appropriate coordinate tag will be applied to the vector ; Info : Display depends on flag 3Dxyz, for rectangular vector : [ijk] [v ₁ v ₂ v ₃] ; rectangular elements : [i]= ; [j]= ; [k]= ; spherical vector : [pθ _i φ _k] _M [v ₁ v ₂ v ₃] ^s ; spherical elements : [p]= ; [θ _i]= ; [φ _k]= ; cylindrical vector : [rθ _i jk] [v ₁ v ₂ v ₃] ^c ; cylindrical elements : [r]= ; [θ _i]= ; [k]=	Vector operations	3Dxyz	$zyx \leftrightarrow \vec{v}_3$	
fF4								
fF5	$tzyx \leftrightarrow \vec{v}_4$	Function (tetradic, nonpgm)	Compose/decompose 1x4 vector	Compose/decompose 1x4 vector from/to T, Z, Y, X	Vector operations		$tzyx \leftrightarrow \vec{v}_4$	
fF6								
gF1	$\mathbb{C} \rightarrow \vec{v}_2$	Function (monadic)	Complex to 1x2 vector	Convert Complex number to 1x2 vector ; Info : Display depends on flag 3Dxyz, for rectangular vector : [ij] [v ₁ v ₂]	Vector operations	3Dxyz	$\mathbb{C} \rightarrow \vec{v}_2$	
gF2	$\vec{v}_2 \rightarrow \mathbb{C}$	Function (monadic)	1x2 vector to Complex number	Convert 1x2 vector to Complex number (2.0-2.5)	Vector operations	3Dxyz	$\vec{v}_2 \rightarrow \mathbb{C}$	

Level	Label	Type	FullName	Extended description	Category	Flag	Catalog	Default
gF3	V→R _{nn}	Command	Copy elements to registers	Copy elements of matrix or vector in X to ascending range of registers, starting with register nn (TAM), where numbers of registers depends on size of matrix or vector ; TAM : V→R _{nn} __ TamIndirect menu ; be careful when using the range of stack registers (100-107) ; Ref : https://47calc.com/doc/C47/Reference/C47_Registers.pdf	Matrix operations	3Dxyz	V→R _{nn}	
gF4	R _{nn} →V	Command	Fill matrix from registers	Fill matrix or vector in X from ascending range of registers starting with register nn (TAM), where numbers of registers depends on size of matrix or vector ; TAM : R _{nn} →V __ TamIndirect menu ; Ref : https://47calc.com/doc/C47/Reference/C47_Registers.pdf	Matrix operations	3Dxyz	R _{nn} →V	
gF5	3DPHYS □	Setting (pgm)	Physics or Math	Switch on Physics conventions in spherical polar vectors ; Info : The notation convention is indicated by the TI subscript of the spherical polar vector : _p for Physics, _m for Math (determines ordering of vector elements, works on whole stack)	Vector operations	3DPHYS		OFF
gF6	3Dxyz □	Setting (pgm)	xyz or ijk vector display	Switch on xyz (rθz) display of vectors ; Info : Indicated by TI subscript of vector elements : _{xyz} or _{ijk}	Vector operations	3Dxyz		OFF