Physical quantity Direction and Rank

Physical quantity	Component	Direction
Scalar	1 Component	No direction (no unit vector)
Vector	Each Component	1 direction (one unit vector)
Tensor	Each Component	More than one direction (more than one unit vectors)

Physical quantity	Component	Rank
Scalar	1 Component with zero direction	Zero
Vector	Each Component has one direction	One
Tensor of rank two	Each Component associated with two directions	Two
Tensor of rank three	Each Component associated with three directions	Three
Tensor of rank n	Each Component associated with n directions	n