



A vector diagram on a light gray grid background. Three vectors originate from a common point at the bottom left. A purple vector points towards the top center, labeled  $J = \frac{3}{2}$ . A green vector points towards the top right, labeled  $S = \frac{1}{2}$ . A blue vector points towards the top right, slightly below and to the left of the green vector, labeled  $L = 1$ . The blue vector is the resultant of the purple and green vectors. To the right of the vectors, the text  $\kappa = 2$  is displayed.

$$J = \frac{3}{2}$$

$$S = \frac{1}{2}$$

$$\kappa = 2$$

$$L = 1$$