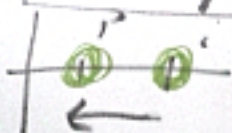


$$\vec{r}_i = x_i \hat{x} + y_i \hat{y} + z_i \hat{z}$$

$$\vec{r}_p = x_p \hat{x} + y_p \hat{y} + z_p \hat{z}$$

$$\vec{r}_{ip} = \vec{r}_p - \vec{r}_i \quad \left| \begin{array}{l} \vec{r}_i = 2\hat{x} \\ \vec{r}_p = 1\hat{x} \end{array} \right.$$



$$\vec{r}_{ip} = 1\hat{x} - 2\hat{x} = -\hat{x}$$

\vec{r}_{ip} = Points to p from i

$$\hat{r}_{ip} = \frac{\vec{r}_{ip}}{|\vec{r}_{ip}|}$$

$$\vec{r}_i = x_i \hat{x} + y_i \hat{y} + z_i \hat{z}$$

$$\vec{r}_p = x_p \hat{x} + y_p \hat{y} + z_p \hat{z}$$

$$\vec{r}_{ip} = \vec{r}_p - \vec{r}_i$$

$$\hat{r}_{ip} = \frac{\vec{r}_{ip}}{|\vec{r}_{ip}|}$$

$$|\vec{r}_{ip}| = \sqrt{\vec{r}_{ip} \cdot \vec{r}_{ip}}$$

$$|\vec{r}_{ip}| = \sqrt{(x_p - x_i)^2 + (y_p - y_i)^2 + (z_p - z_i)^2}$$