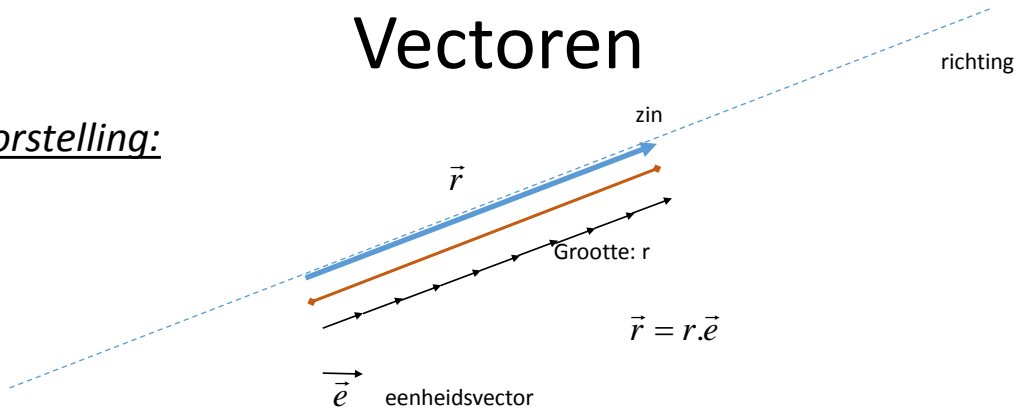


Vectoren

Voorstelling:

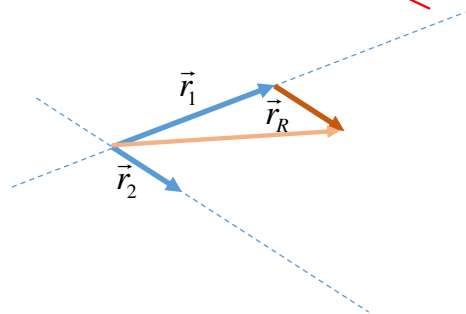
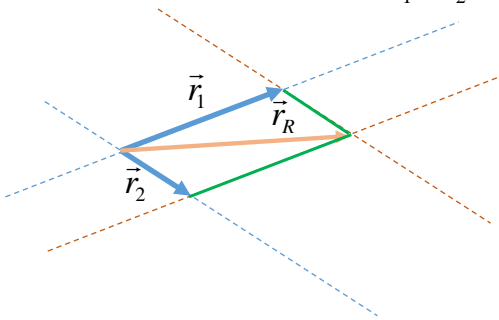


samenstelling:

$$\vec{r}_1 + \vec{r}_2 = \vec{r}_R$$

OPGEPAST! NIET HETZELFDE ALS

~~$$r_1 + r_2 = r_R$$~~

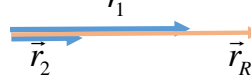


$$r = \sqrt{r_1^2 + r_2^2 + 2r_1r_2 \cos \alpha}$$

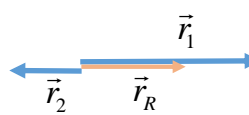
Hoek tussen r1 en r2

Speciale gevallen:

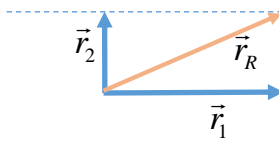
De 2 vectoren hebben dezelfde richting en zin:


$$r = \sqrt{r_1^2 + r_2^2 + 2r_1r_2 \cos 0^\circ}$$
$$r^2 = r_1^2 + 2r_1r_2 + r_2^2 \quad r = r_1 + r_2$$

De 2 vectoren hebben dezelfde richting en tegengestelde zin:


$$r = \sqrt{r_1^2 + r_2^2 + 2r_1r_2 \cos 180^\circ}$$
$$r^2 = r_1^2 - 2r_1r_2 + r_2^2 \quad r = r_1 - r_2$$

De 2 vectoren staan loodrecht op elkaar:


$$r = \sqrt{r_1^2 + r_2^2 + 2r_1r_2 \cos 90^\circ}$$
$$r = \sqrt{r_1^2 + r_2^2}$$