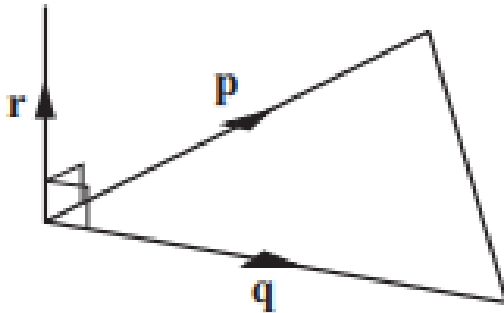


Exemplar P2 Q6

6. An equilateral triangle with sides of length 3 units is shown.



Vector  $r$  is 2 units long and is perpendicular to both vectors  $p$  and  $q$ . Calculate the value of the scalar product  $p \cdot (p + q + r)$ .

Answer

$$\frac{27}{2}$$