

8-1-3 Operations on Vectors

Zero vector: vector w/ no magnitude



add opposite vectors

(zero displacement) the result is the zero vector.

Scalar multiplication:

multiply vector \vec{v} by scalar k ($k\vec{v}$)

Ⓐ magnitude multiplied by k

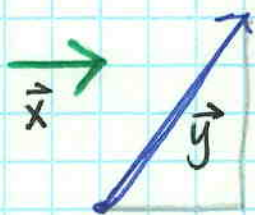
Ⓑ direction: $+k$, same direction

$-k$, opposite direction

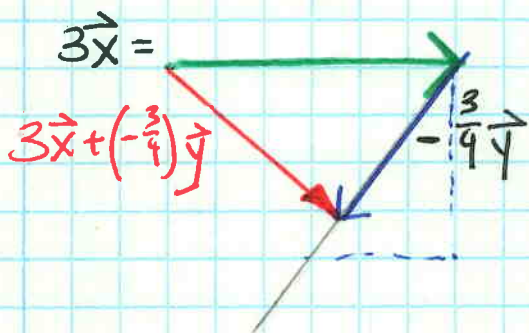
Example: Scalar multiplication

Draw vector $3\vec{x} - \frac{3}{4}\vec{y}$

① Rewrite as addition $3\vec{x} + (-\frac{3}{4})\vec{y}$



$1sq = 1 \text{ unit}$



488: 1-6, 7, 9, 11, 13, 19-20