/home/david/Book/Chapters/2.Vectors/VectorOperations/pic/
white

0.1 Elementary vector operations

black
$10 \cdot 3,5 rooj$scalar multiplication$black$
$3,5^T pers$transpose$black$
$2,1+1,2 groen$addition$black$
$2,1-1,2 blou$subtraction$black$

Operations: These 4 operations are the most elementary and common operations you will be using in linear algebra. They are

- rooj Scalar multiplication black simply multiplies every element of the vector with the scalar
$$10 \cdot 3,5 = 30,50$$
- pers Transposing black a vector is simply converting it from a row-vector to a colum-vector, or a column-vector back to a row-vector
$$3,5^T = 35$$
- groen Adding black two vectors is exactly how you would think
$$1,2+2,1 = 3,3$$
- blou Subtractionblack, like addition, is just how you'd think
$$2,1-1,2 = 1,-1$$
however, drawing subtraction is a bit more involved than addition:

Exercice: Here are 3 vectors, $u = 3,5, v = 8,10, p = 10,1,1$, can you add them together?

$$1,6$$