

## QUIZ, MEETING 03

LINEAR ALGEBRA SECTION 01, SPRING 2014

**Problem 1.** Suppose that we have the two vectors  $u$  and  $v$  given below.

$$u = \begin{pmatrix} 2 \\ 1 \\ -10 \end{pmatrix}, \quad v = \begin{pmatrix} -5 \\ 3 \\ 7 \end{pmatrix}.$$

Compute the following:

- a:** The dot product  $u \cdot v$ .
- b:** The norm  $\|u\|$ .
- c:** A unit vector which points in the same direction as  $u$ .
- d:** The angle  $\theta$  between the vectors  $u$  and  $v$ .