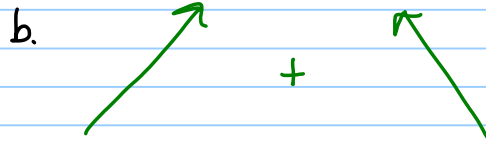
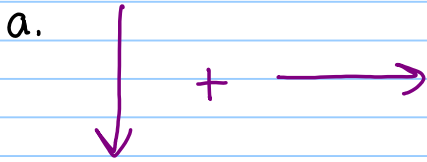


Quiz 1c

Note Title

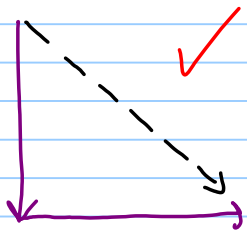
27/09/2012

1) Add the following vectors and show the resultant.

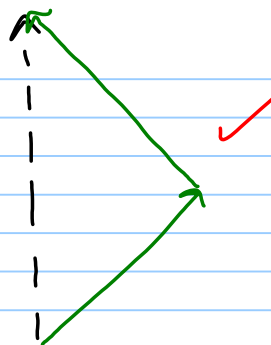


2) Mr Trask is trying to find the library - but nobody made him a map! From his room he walks 12 m East, then 24 m South and finally 4.0 m East. Determine his total displacement. (Include a vector diagram)

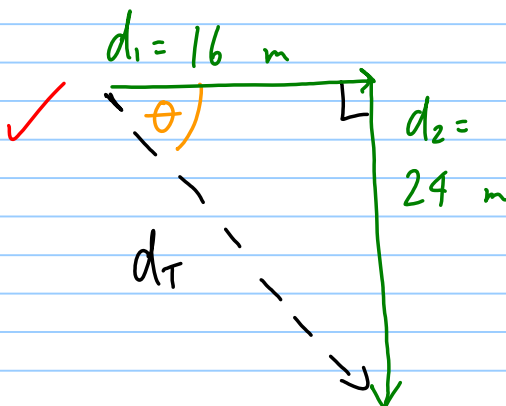
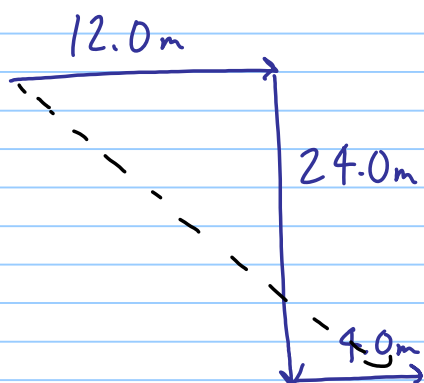
1.) a.



b.



2.)



$$d_T^2 = d_1^2 + d_2^2$$
$$d_T = \sqrt{16^2 + 24^2}$$
$$= 29 \text{ m}$$

$$\tan \theta = \frac{d_2}{d_1}$$

$$\theta = \tan^{-1}\left(\frac{24}{16}\right)$$
$$= 56^\circ \text{ S of E}$$