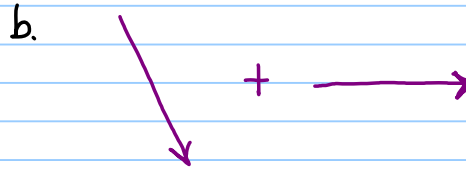
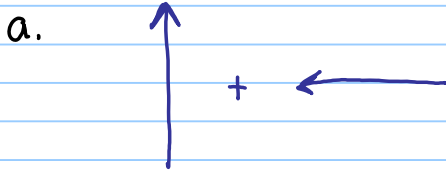
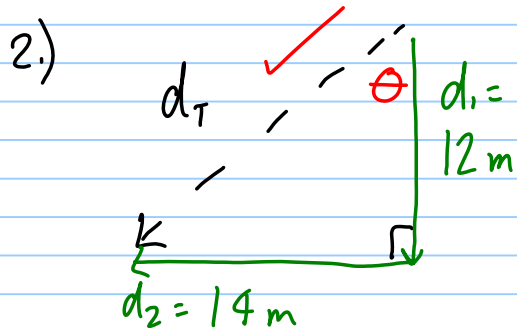
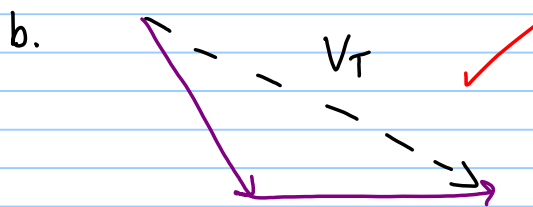
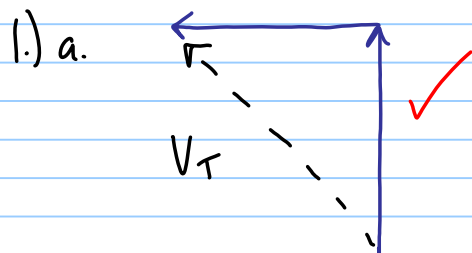


Quiz 1a.

1) Add the following vectors and show the resultant.



2) A child crawls 12 m South and then 14 m West. Determine their total displacement. (Include a vector diagram)



$$d_T^2 = d_1^2 + d_2^2$$

$$d_T = \sqrt{12^2 + 14^2}$$

$$= 18 \text{ m} \checkmark$$

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

$$\theta = \tan^{-1}\left(\frac{14}{12}\right)$$

$$= 49^\circ \text{ W of S} \checkmark$$