Adding, Subtracting, and Multiplying Vectors

1. Given points vector $\vec{u}\ (3,3)$ and $\vec{v}\ (11,8)$, find $\vec{u} + \vec{v}$.

$\vec{u} + \vec{v} = (\quad , \quad)$

2. If $\vec{u} = (3,5)$, determine $\vec{r}$ when $\vec{r} = 4\vec{u}$.

$\vec{r} = (\quad , \quad)$

3. If $\vec{u} = (6,5)$, determine $\vec{r}$ when $\vec{r} = -\vec{u}$.

$\vec{r} = (\quad , \quad)$

4. If T=(-3, 8), X=(3, 10), Y=(-4, -7) and Z=(-8, -10), find $\vec{r} = 4\overrightarrow{TX} + \overrightarrow{YZ}$

$\vec{r} = (\quad , \quad)$

5. Given P=(-10, -8) and Q=(-4, -3), find the opposite vector to $\overrightarrow{PQ}$.

$\vec{r} = (\quad , \quad)$