

Item six

You are the Human Resource of an organization. To go to the Organization offices, you drive from home in the direction of $N45^{\circ}W$ for $425m$ to reach the main road. From the main road, you drive at a bearing of 180° to reach the offices. The total distance travelled from home to the offices is $725m$.

On reaching the offices, the manager informs you that the organization should recruit more employees and there is 10 million shillings available every month to cater for their monthly salaries.

In this organization, an employee pays a total monthly tax of Shs. 26,900 basing on the tax structure below

Taxable income (Shs)	Rate (%)
100,000 – 200,000	5
200,001 – 300,000	15
300,001 – 450,000	20
450,001 – 600,000	25
Above 600,000	30

Each employee is also entitled to the following tax free allowances:

Daily transport of Shs. 3000, medical of Shs. 40,000, annual insurance of Shs. 300,000, water and electricity of Shs. 75,000 and housing of Shs. 90,000

Note that a month has 30 days

Task

- (a) (i) Describe the direction of your home from the Organization offices
- (ii) How long will it take your messenger walking at an average speed of 20m/minute from the offices to reach your home using direct route?
- (b) (i) Basing on mathematics evidence, how many employees will the organization have to recruit to fit the available money?
- (ii) What percentage of the employee's salary goes to tax?