

ENERGY NEEDS

This unit asks two questions of students. The first problem, shown below, is about selecting suitable food to meet the energy needs of a person in Zedland. Success indicated that a student was able to look up needed information for solving a problem. This item's demands were below those associated with Level 1.

Daily energy needs recommended for adults

		Men	Women
Age (years)	Activity level	Energy needed (kJ)	Energy needed (kJ)
From 18 to 29	Light	10660	8360
	Moderate	11080	8780
	Heavy	14420	9820
From 30 to 59	Light	10450	8570
	Moderate	12120	8990
	Heavy	14210	9790
60 and above	Light	8780	7500
	Moderate	10240	7940
	Heavy	11910	8780

Activity level according to occupation

Light:

Indoor sales person
Office worker
Housewife

Moderate:

Teacher
Outdoor salesperson
Nurse

Heavy:

Construction worker
Labourer
Sportsperson

**ENERGY NEEDS – Question 1**

Mr David Edison is a 45-year-old teacher. What is his recommended daily energy need in kJ?

Answer: kilojoules.

Jane Gibbs is a 19-year old high jumper. One evening, some of Jane's friends invite her out for dinner at a restaurant. Here is the menu:

	MENU	Jane's estimate of energy per serving (kJ)
Soups:	Tomato Soup	355
	Cream of Mushroom Soup	585
Main courses:	Mexican Chicken	960
	Caribbean Ginger Chicken	795
	Pork and Sage Kebabs	920
Salads:	Potato salad	750
	Spinach, Apricot and Hazelnut Salad	335
	Couscous Salad	480
Desserts:	Apple and Raspberry Crumble	1380
	Ginger Cheesecake	1005
	Carrot Cake	565
Milkshakes:	Chocolate	1590
	Vanilla	1470

The restaurant also has a special fixed price menu.

Fixed Price Menu

50 zeds

Tomato Soup

Caribbean Ginger Chicken

Carrot Cake

ENERGY NEEDS – Question 2

Jane keeps a record of what she eats each day. Before dinner on that day her total intake of energy had been 7520 kJ.

Jane does **not** want her total energy intake to go **below or above her recommended daily amount** by more than 500 kJ.

Decide whether the special "Fixed Price Menu" will allow Jane to stay within ± 500 kJ of her recommended energy needs. Show your work.