



Nutrition Facts	
Serving Size 1 oz (28.3 g)	
Amount Per Serving	Calories from Fat 11
Calories 70	% Daily Value
	1%
<b>Total Fat</b> 1.2g	
Saturated Fat 0.3g	
Polyunsaturated Fat 0.3g	0%
Monounsaturated Fat 0.5g	6%
<b>Cholesterol</b> 0mg	4%
<b>Sodium</b> 149mg	8%
<b>Total Carbohydrates</b> 13.0g	
Dietary Fiber 2.0g	
Sugars 5.6g	
<b>Protein</b> 2.7g	Vitamin C 0%
Vitamin A 0%	Iron 5%
Calcium 2%	
* Based on a 2000 calorie diet	



## Mark's Rugby Diet

All food that we eat gives us energy. It is this energy that allows us to do things in the day, like playing sport for example. That energy we take in, needs to be used up in our body. Energy is measured in kilojoules (kJ) or in calories. If a person takes in more energy (in food) than what they use up (by exercise), he/she will put on weight. Mark loves to play sports, rugby in particular is his favorite. He wants to be the best rugby player he can be, and he therefore wants to do everything in his power to do so, like practice often and be healthy, and have a good, optimum body weight for a rugby player. In order to do so, he must look at what he eats everyday.

According to his Recommended Daily Allowance (RDA), Mark is allowed to consume 12 000 kJ per day.

The table below shows everything Mark has already eaten today, with the relevant kilojoules information.

*Mark feels like he needs some more bread and butter slices!!*

**Can you help him work out how many more slices of bread and butter he is allowed to eat today?**

Food Type	Portion Size	kJ/100g of the Food Type	kJ consumed
1 x Jungle Oats cereal	40 g	1443	
1 x Safari Dried Fruit	32 g	1057	
2 x Biscuits	13.3 g each	2236	
1 x McDonalds Meal	-	-	5292
__ slices of Bread	50 g	983	
__ portions Butter	5 g	3008	
		<b>Total kJ consumed:</b>	

## **Mark's Rugby Diet: SOLUTION**

### **Question 1**

1 piece bread = 50g

@: 983kJ/100g

100g → 50g = divide by 2

Therefore 983kJ → x amount in bread = also divide by 2

$$983 / 2 = 492\text{kJ}$$

Butter portion = 5g

@: 3008kJ/100g

100g → 5g = divide by 20

Therefore 3008kJ → y amount in Butter = also divide by 20

$$3008 / 20 = 150\text{kJ}$$

So, when 1 portion of bread is put with 1 portion of butter, in total the kJ count would be  $492\text{kJ} + 150\text{kJ} = 642\text{kJ}$  per slice of bread with butter

### **Question 2**

-First it's important to look at the RDA: 12 000kJ

-Then calculate how much he has already eaten in the form of kJ:

$$577+338+595+592 = 6802\text{kJ already consumed}$$

-must then calculate how many kJ he can still eat that day:

$$12\ 000\text{kJ} - 6802\text{kJ} = 5198\text{kJ he can still eat}$$

-calculate how many slices of bread and butter are equivalent to 5198kJ

$$5198\text{kJ} / 642\text{kJ} = 8.09\text{ slices of bread}$$

So, he can eat 8 slices of bread and butter still today