

Grade 7 Mathematics Sample Performance Task Student Worksheet

You are a volunteer at International Food Assistance. This organization delivers "food baskets" to help people around the world. The requirements for each food basket are shown below.

Here are the requirements for each food basket:

- Contains grains such as rice, wheat, or oatmeal
- Contains legumes such as kidney beans, nuts, or lentils
- Contains exactly 35 grams (g) of oil for cooking
- Contains exactly 50 grams (g) of Super Cereal
- Has a minimum of 2100 total calories
- At least 8% of the total calories come from protein
- At least 10% of the total calories come from fat
- The cost of each basket cannot exceed \$0.75

Here are the contents and quantities of a **Sample Food Basket:**

Food	Quantity	Calories	Protein (1 g = 4 calories)	Fat (1 g = 9 calories)	Cost per kilogram
Rice	800 g	920	9 g	2 g	\$0.58
Lentils	240 g	812	34 g	2 g	\$0.90
Oil	35 g	315	0 g	35 g	\$1.20
Super Cereal	50 g	200	10 g	5 g	\$0.12

This assessment has four questions about planning food baskets. You will examine factors such as nutrition and food prices. The final question requires you to design a food basket using the interactive simulation table. Read and answer each question.



Nutritional Value and Cost of Wheat and Oatmeal



Grain Oatmeal

Quantity (g) 1000 🗸

Start



Grain	Quantity (g)	Calories	Protein (g) (1 $g = 4$ calories)	Fat (g) $(1 g = 9 calories)$	Cost per kilogram
Oatmeal	100	67	1	2	\$1.02
Oatmeal	200	133	2	4	\$1.02
Oatmeal	300	200	3	6	\$1.02
Oatmeal	400	267	4	8	\$1.02
Oatmeal	500	333	5	10	\$1.02
Oatmeal	600	400	6	12	\$1.02
Oatmeal	700	467	7	14	\$1.02
Oatmeal	800	533	8	16	\$1.02
Oatmeal	900	600	9	18	\$1.02
Oatmeal	1000	667	10	20	\$1.02



Nutritional Value and Cost of Wheat and Oatmeal



Grain (Wheat 🗸

Quantity (g) 1000 🗸

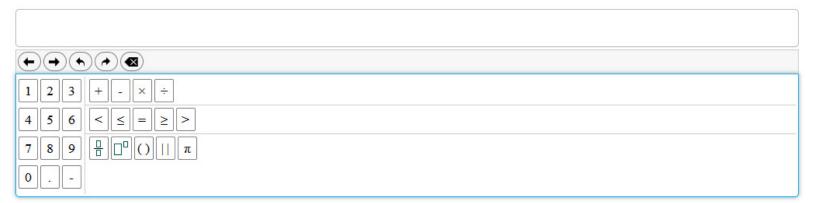
Start

Clear All Rows

Quantity (g)	Calories	Protein (g) (1 $g = 4$ calories)	Fat (g) $(1 g = 9 calories)$	Cost per kilogram	
100	340	14	3	\$0.75	Ū
200	680	28	6	\$0.75	Ü
300	1020	42	9	\$0.75	Ü
400	1360	56	12	\$0.75	•
500	1700	70	15	\$0.75	Ü
600	2040	84	18	\$0.75	Ü
700	2380	98	21	\$0.75	Ü
800	2720	112	24	\$0.75	Ü
900	3060	126	27	\$0.75	Ü
1000	3400	140	30	\$0.75	Ü
	100 200 300 400 500 600 700 800	100 340 200 680 300 1020 400 1360 500 1700 600 2040 700 2380 800 2720 900 3060	100 340 14 200 680 28 300 1020 42 400 1360 56 500 1700 70 600 2040 84 700 2380 98 800 2720 112 900 3060 126	100 340 14 3 200 680 28 6 300 1020 42 9 400 1360 56 12 500 1700 70 15 600 2040 84 18 700 2380 98 21 800 2720 112 24 900 3060 126 27	200 680 28 6 \$0.75 300 1020 42 9 \$0.75 400 1360 56 12 \$0.75 500 1700 70 15 \$0.75 600 2040 84 18 \$0.75 700 2380 98 21 \$0.75 800 2720 112 24 \$0.75 900 3060 126 27 \$0.75



1. Create an expression to calculate the number of calories from fat in the **Sample Food Basket**.



2. Create an expression to calculate the percent of total calories from protein in the **Sample Food Basket**.

ype your answer in the space provided. Use specific numbers in your explanation.						

4. Bad weather is damaging rice crops, so you need to use wheat **or** oatmeal as the grain requirement in the food baskets. Enter different quantities in the table **Nutritional Value and Cost of Wheat and Oatmeal** to explore the changes in calories, protein, fat, and cost of replacing rice with wheat or oatmeal.

Using your information from exploring in the table **Nutritional Value and Cost of Wheat and Oatmeal**, you need to make a new food basket.

Part A

Determine the contents of a new basket that uses wheat **or** oatmeal instead of rice and meets all of the requirements. Enter your information in all six blank cells in the table.

Food	Quantity	Calories	Protein (1 g = 4 calories)	Fat (1 g = 9 calories)	Cost per kilogram
Lentils	240 g	812	34 g	2 g	\$0.90
Oil	35 g	315	0 g	35 g	\$1.20
Super Cereal	50 g	200	10 g	5 g	\$0.12

Part B

Explain how your new basket meets all of the requirements for a food basket.

Type your answer in the space provi arphi	ded.
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