

problem solving – measure

discover

I am going to make enough apple crumble for 5 people.

Oh dear! My scales only measure in grams!

Lee



APPLE CRUMBLE

(Serves 4 people)

- Ingredients**
- 4 cooking apples
 - 2 oz oats
 - 4 oz brown sugar
 - 5 oz plain flour
 - 4 oz butter

Reena

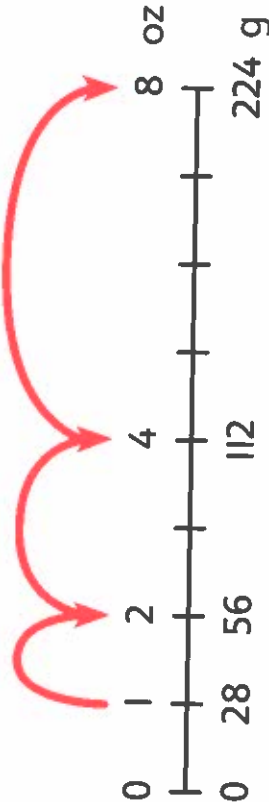
1 oz is approximately 28 grams

- a) How can Reena measure the ingredients using her scales?
- b) What quantities should Lee use to make enough apple crumble for 5 people?

Share

a) Reena needs to convert from ounces (oz) to grams (g).

$$5 \text{ oz} = 4 \text{ oz} + 1 \text{ oz} = 112 \text{ g} + 28 \text{ g} = 140 \text{ g}$$



I could multiply each number by 28, but I can see a way to use doubling facts to help me multiply more quickly!



Reena can use the scales to measure these amounts:

- 2 oz = 56 g oats
- 4 oz = 112 g brown sugar
- 4 oz = 112 g butter
- 5 oz = 140 g plain flour

b) The recipe is for 4 people. Lee can divide each ingredient by 4 and multiply by 5.

4 persons

1 person	1 person	1 person	1 person
1 person	1 person	1 person	1 person
5 persons			

I can divide by 4 to find the quantities for one person. I will use this to alter the recipe for 5 people.



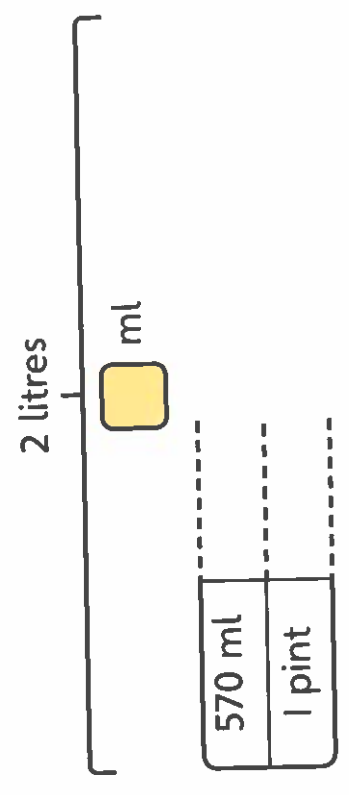
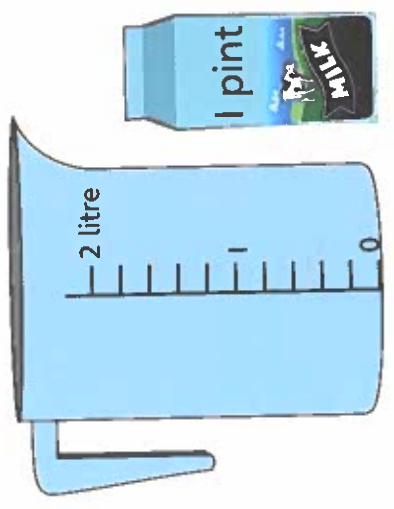
Ingredient	÷ 4 (one person)	× 5 (five people)
4 cooking apples	$4 \div 4 = 1$	$1 \times 5 = 5$ cooking apples
56 g oats	$56 \div 4 = 14 \text{ g}$	$14 \times 5 = 70 \text{ g}$ oats
112 g brown sugar	$112 \div 4 = 28 \text{ g}$	$28 \times 5 = 140 \text{ g}$ brown sugar
112 g butter	$112 \div 4 = 28 \text{ g}$	$28 \times 5 = 140 \text{ g}$ butter
140 g plain flour	$140 \div 4 = 35 \text{ g}$	$35 \times 5 = 175 \text{ g}$ plain flour

Think together

Jamie wants to fill a 2 litre jug with milk.

a) How many cartons of milk does she need to open to pour into the jug?

1 pint is approximately 570 ml.



Jamie will need to open cartons of milk.

b) How much milk will Jamie have left over?

Jamie will have ml left over.

2 Danny is making a fruit pie.

He wants to serve it at 17:10.

Read the instructions. What is the latest time he should start preparing it?



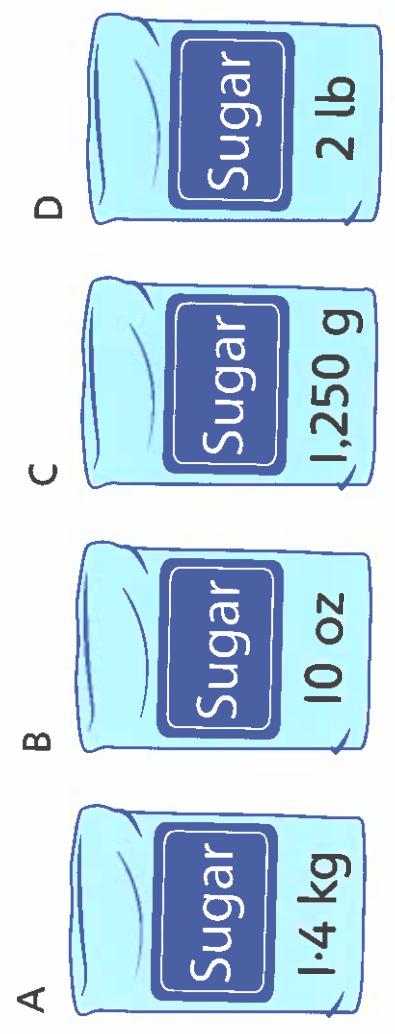
Fruit pie

Preparation time:
25 minutes

Cooking time:
55 minutes

Serve hot!

3 These bags of sugar are all the same price.



1 ounce (oz) is approximately 28 g.
1 pound (lb) is approximately 0.45 kg.

Which one is the best value?
Explain how to find the answer.

It would be easier if all the bags were in the same unit of measurement.

I know how to convert all these units into grams. I could then compare them.

