

Team names: _____

Application Exercise 1

Chocolate Fudge Sauce Pudding

pudding ingredients

- 1 cup self-raising flour
- 180g sugar
- ½ cup milk
- 2 Tbsp cocoa
- 2 Tbsp butter

Sauce ingredients

- ¾ cup brown sugar
- 1½ Tbsp cocoa
- 315mL hot water

1. Combine pudding ingredients, pour sauce ingredients over top.
2. Cook in moderate oven (180°C) for 40 minutes. Serves 6.

Measurement Conversions

1 tsp	=	5mL
1 Tbsp	=	20mL
1 cup	=	250mL
1 cup flour	=	135g
1 cup sugar	=	210g
1 cup milk	=	258g
1 cup water	=	250g

Abbreviations

teaspoon (tsp)
tablespoon (Tbsp)
millilitres (mL)
grams (g)
1Tbsp cocoa = 8g
1Tbsp butter = 20g

Pudding for one can be made in a mug, microwaved for 2 minutes.

*Fill in the missing measurements.
Which ingredient list would be best for an individual serve?*

(A)

$\frac{1}{6}$ cup self-raising flour
30g sugar
 $\frac{1}{12}$ cup milk
 $\frac{1}{3}$ Tbsp cocoa
 $\frac{1}{3}$ Tbsp butter
_____ cup brown sugar
 $\frac{1}{4}$ Tbsp cocoa
52.5mL hot water

(B)

8 tsp self-raising flour
6 tsp sugar
4 tsp milk
1 tsp cocoa
1 tsp butter
6 tsp brown sugar
1 tsp cocoa
_____ tsp hot water

(C)

2 Tbsp self-raising flour
_____ Tbsp sugar
1 Tbsp cup milk
 $\frac{1}{3}$ Tbsp cocoa
 $\frac{1}{3}$ Tbsp butter
 $1\frac{1}{2}$ Tbsp brown sugar
 $\frac{1}{4}$ Tbsp cocoa
 $2\frac{1}{2}$ Tbsp hot water

(D)

_____ g self-raising flour
30g sugar
20g milk
1g cocoa
3g butter
30g brown sugar
1g cocoa
50g hot water

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Application Exercise 2

Australia's largest scale model of the solar system is located in northern NSW and yet is 38 million times smaller than the real thing.



The sun is represented by the 37 metre dome of the telescope at Coonabarabran and Neptune is a 1.5 hour drive away!

Designed when Pluto was still designated as a planet, you would have to drive another hour to see its tennis-ball-sized replica.

The scale model in Sweden is twice as big. One made at school would need to be smaller...

Body	Body diameter (km)	Orbit radius (km)	Body diameter (mm)	Orbit radius (mm)
Sun	1,391,900			
Mercury	4,866	57,950,000		
Venus	12,106	108,110,000		
Earth	12,742	149,570,000		
Mars	6,760	227,840,000		
Jupiter	142,984	778,140,000		
Saturn	116,438	1,427,000,000		
Uranus	46,940	2,870,300,000		
Neptune	45,432	4,499,900,000		

*If you were designing a scale model of the solar system,
what would you use to represent the sun?*

- (A) tennis ball (66mm diameter)
- (B) softball (97mm diameter)
- (C) handball (159mm diameter)
- (D) basketball (239mm diameter)