Mathematical modelling: Pocket money

Maree and her two brothers help around the house.

Maree's parents set aside $15 per week for the pocket money.

Each week, Maree's parents let them decide how to divide the $15 between them.

Here are the ways they help around the house and what jobs they finished over one month. A tick means the job was completed every day. A cross means that they didn't do that job in the week.

	Week 1	Week 2	Week 3	Week 4
Maree	Bins ✅ Wash dishes ❌	Bins ✅ Wash dishes ❌	Bins ✅ Wash dishes ✅	Bins ✅ Wash dishes ✅
Angelo	Sweep and tidy ✅ Bathrooms ✅	Sweep and tidy ✅ Bathrooms ❌	Sweep and tidy ✅ Bathrooms ✅	Sweep and tidy ✅ Bathrooms ✅
Raph	Mow lawn and weed ✅ Washing ✅	Mow lawn and weed ❌ Washing ✅	Mow lawn and weed ✅ Washing ✅	Mow lawn and weed ❌ Washing ❌

1. Record your ideas about how the pocket money should be divided up between the three children.

- List or draw some possible ways.
- Look closely at the jobs completed by each person before deciding how the pocket money should be divided.

2. Choose how you would divide the pocket money between Maree and her brothers.

- Model how you worked out the problem. Show your plan as a drawing and include any working out.

3. How much pocket money does each person get for the 4 weeks?

4. They each are saving for an item. How long will it take them to save up?

Make an estimate for each person. What is an estimate that is too low? What is an estimate that is too high?

Explain your calculations and how you worked it out.

	Item they are saving for	Amount saved	How many weeks until they can purchase
Maree	New basketball runners ($125)	$65	
Angelo	Skateboard ($179)	$33	
Raph	Buying a rescue dog ($325)	$109	

Image sources

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tick and cross 'image: Flaticon.com'