The Thanksgiving Potluck Problem

The Situation: It's the night before Thanksgiving. Cousins Sam and Taylor have 4 hours (240 minutes) to prepare pies and rolls for the family potluck tomorrow. Sam and Taylor want to contribute as much as possible to the holiday meal. Help them choose the best baking plan.

Here's how long each person needs to bake one pie or one batch of rolls:

Baker	Minutes to bake 1 pie	Minutes to bake 1 batch of rolls
Sam	60	30
Taylor	120	40

KEY TERMS

Absolute advantage: the ability to produce something faster than someone else

Opportunity cost: what you give up make something

Comparative advantage: the ability to produce something at a lower opportunity cost than someone else

DETERMINING ABSOLUTE ADVANTAGE

Who has the absolute advantage in baking pies? How do you know?

Who has the absolute advantage in baking rolls? How do you know?

DETERMINING COMPARATIVE ADVANTAGE

Complete the table. One answer has been provided for you with a hint to help you.

Baker	Opportunity cost of baking 1 pie	Opportunity cost of baking 1 batch of rolls
Sam		
Taylor		⅓ pie*

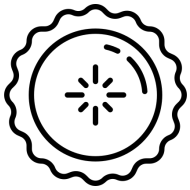
*To determine Taylor's opportunity cost for baking 1 batch of rolls, ask yourself "How many pies could Taylor have baked in the amount of time it takes them to bake 1 batch of rolls?" Because it takes Taylor 120 minutes to bake a pie, in the 40 minutes they need to bake a batch of rolls they would only be ⅓ of the way through baking a pie.

Who has the comparative advantage in baking pies? How do you know?

Who has the comparative advantage in baking rolls? How do you know?

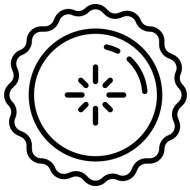
Plan 1: Focus on absolute advantage (Sam does all the baking, while Taylor watches)

If Sam bakes for the full 240 minutes, spending 120 minutes on pies and 120 minutes on rolls, how many pies and batches rolls will Sam produce for the family potluck?

___  ___ 

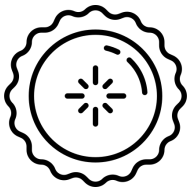
Plan 2: Each person bakes two pies

If Sam and Taylor each bake two pies and spend the remaining time (if any) baking rolls, how many pies and batches rolls will they produce for the family potluck?

4  ___ 

Plan 3: Focus on comparative advantage (circle the correct *baker* in the statement below)

If *Sam/Taylor* spends 240 minutes only baking pies and *Sam/Taylor* spends 240 minutes only baking rolls, how many pies and batches of rolls will they produce for the family potluck?

___  ___ 

FINAL DECISION

Which plan should Sam and Taylor follow? Explain.