



The Oran Berry Passing Circle

**COMPLETE TO COLLECT****Master-Cut Garnet**

Level 5 · 8 Glints

In Pokémon, Pikachu, Eevee, and Bulbasaur each start with a positive whole number of Oran Berries. They make three passes in order, and every pass works.

On each pass, the giver matches the receiver's current pile: Pikachu passes to Eevee, then Eevee passes to Bulbasaur, then Bulbasaur passes to Pikachu.

After the third pass, all three Pokémon have the same number of berries.

1

**Pikachu →
Eevee**
Match Eevee's
pile

**2**

**Eevee →
Bulbasaur**
Match
Bulbasaur's
pile

**3**

**Bulbasaur →
Pikachu**
Match
Pikachu's pile



TRACK THE THREE PILES

State Pikachu Eevee Bulbasaur

Start

After pass 1

After pass 2

After pass 3

QUESTIONS

Use the state table. Write the proof on separate paper.

- 1 What is the smallest possible total number of berries they could have at the start?
- 2 For that smallest total, how many berries did Pikachu, Eevee, and Bulbasaur each start with? Show all three passes to check your answer.
- 3 Prove that no smaller starting total can work.

