Problem of the Week
Problem C
Coin Collection

Arya has never travelled to another country, but has a collection of foreign coins given to him by friends and family who have. In his collection he has 10 coins from Africa, 6 coins from Asia, 7 coins from South America, and 8 coins from Europe.

One day Arya's grandfather added some Australian coins to the collection. After he did that, he told Arya that if he took a coin at random from the collection, the probability of it being from either Africa or Asia was $\frac{4}{9}$.

How many Australian coins did Arya's grandfather add to the collection?