# AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES 

SCHOOLS ENRICHMENT CENTRE (AIMSSEC)
AIMSSEC
AIMING HIGH

## MONEY BAGS

Ram had 15 coins, all the same kind, and he put them into 4 bags. He labelled each bag with the number of coins inside it. He could then pay any sum of money from 1 coin to 15 coins with one or more of the bags and without opening any of the bags.

How could he do that?


## HELP

Try this for yourself. Use stones or counters for the coins or make them from scrap paper.
Experiment by putting the coins in 4 piles or bags and rearrange them until you find the solution. Keep a record of what you have tried to save wasting time by trying the same thing over and over again.

## NEXT

Suppose you had another bag and some more coins. What would be the amount to put in the fifth bag so you could make all the amounts $16,17,18, \ldots$. and as many as possible?

