Starter:

$$\frac{7}{8} - \frac{3}{8}$$

24.05.21

LO: To solve problems

STOPS money problems!

Money Bags!

Problem one:

Money bags

Roman has two bags with money.

He has 2 pennies in one bag and 5 pennies in the other bag,

What amounts of money can he pay without opening the bags?

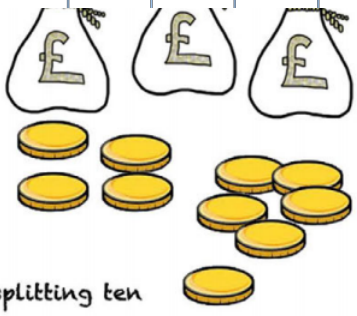


£1 £2.50 2 pennies

50p 20p 5p 10p 2p 1p

Problem two:

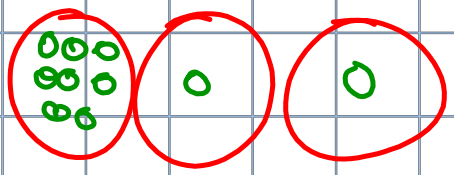
Roman splits ten coins between three bags.



How could he do it?
Find different ways of splitting ten coins in 3 bags.

What amounts of money can he pay without opening the bags?

£1, £2, 50p, 20p, 10p, 5p, 2p, 1p



Problem three:

Roman has 2 pennies in one bag, 5 pennies in another bag and 8 pennies in the last bag.



What amounts of money from 1p to 15p can he pay without opening a bag?

Which amounts can he not pay?

Problem four:

Roman has four bags.

In the first bag there are 2 pennies. In the second bag there are 3 pennies. In the third bag there are 4 pennies and in the last bag there are 5 pennies.



What amounts of money up to 15p can he pay without opening any of the bags?

Problem five:

Roman divided 7 pennies into three bags.



He can pay any amount of money up to 7p without opening any of the bags.

How much did he put in each bag?

Problem six:

Roman divided 15 pennies among four bags.



He could then pay any sum of money from 1p to 15p, without opening any bag.

How many 1p coins did Roman put in each bag?

Challenge:

Roman divided 31 pennies among five bags.

Can he pay any sum of money from 1p to 31p, without opening any bag?



How many 1p coins did Roman put in each bag?

What if he has 6 bags and 63 pennies?