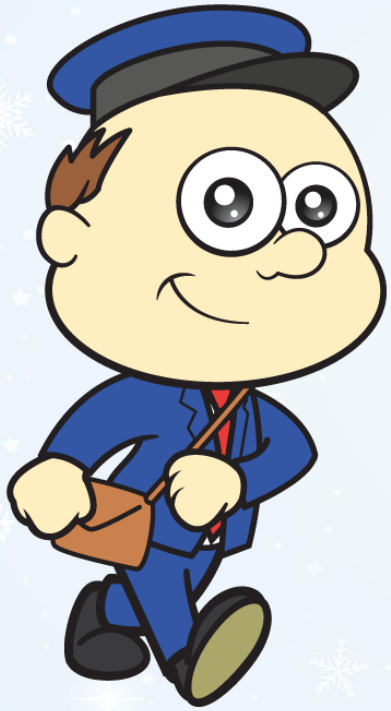
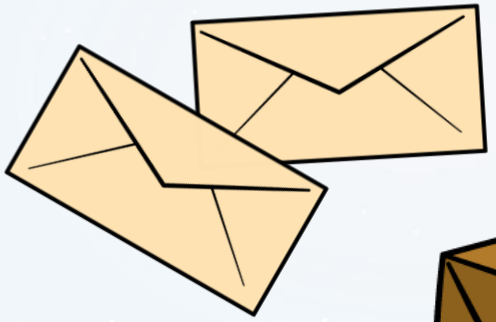
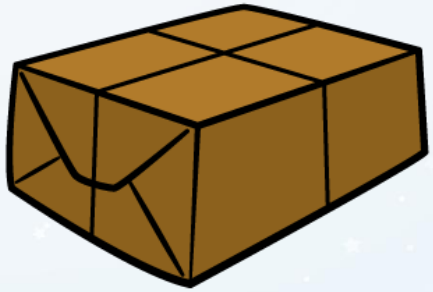
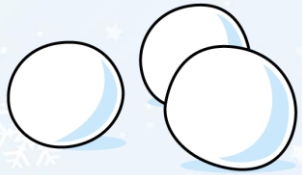
SPECIAL DELIVERY





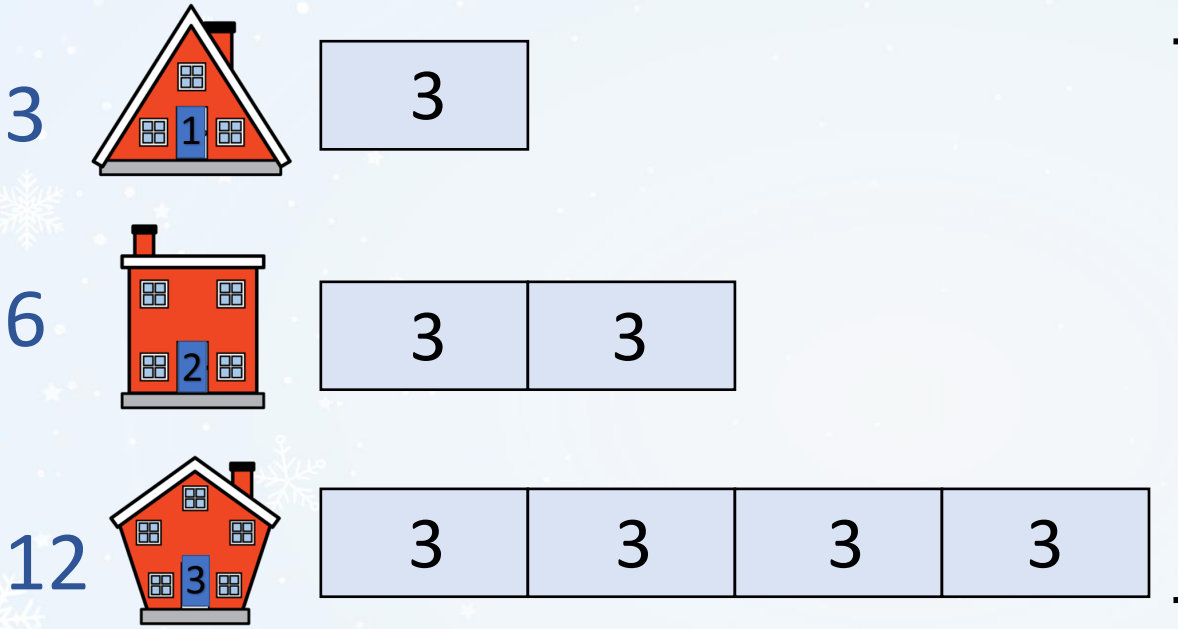




There are 3 houses on Rose Street.
Number 2 receives twice as many cards as Number 1
Number 3 receives twice as many cards as Number 2
Altogether 21 cards are delivered.

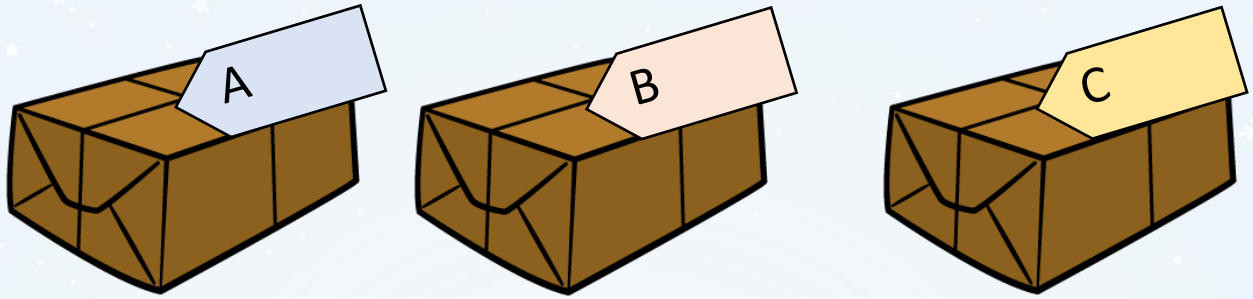
How many cards does each house receive? Have a think

Number 1 receives twice as many cards as Number 2



How many cards does each house receive?

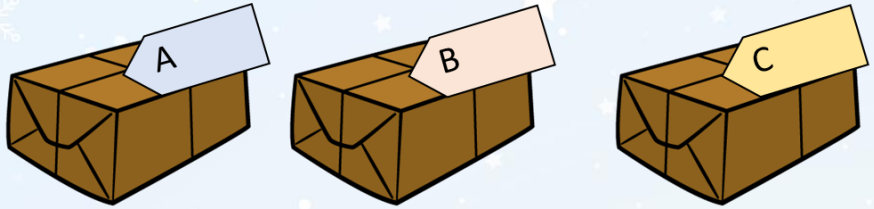
Here are three parcels.



Parcel A and Parcel B together weigh 90 g.
Parcel B and Parcel C together weigh 130 g.
Parcel A and Parcel C together weigh 120 g.

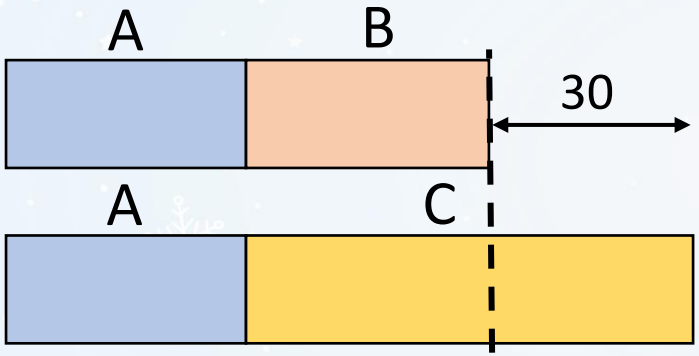
What is the weight of each parcel?

Have a think



Parcel A and Parcel B together weigh 90 g.

Parcel A and Parcel C together weigh 120 g.

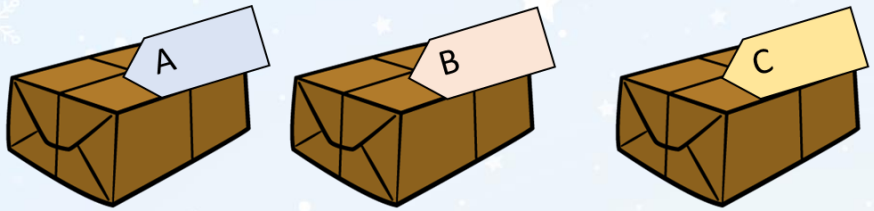


90 g

120 g

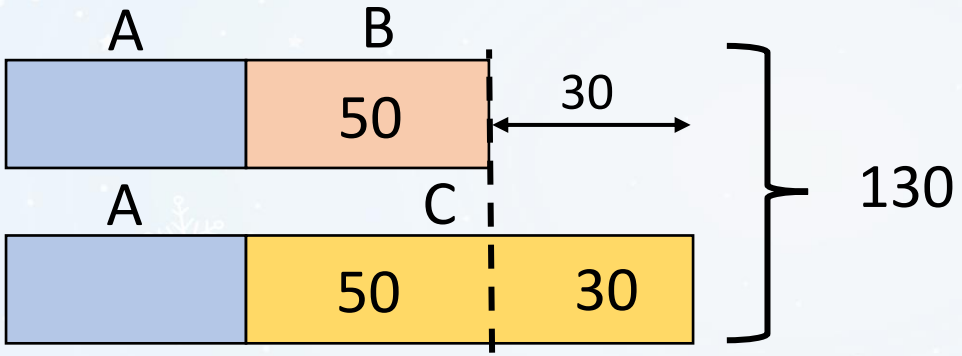
$120 - 90 = 30$

Parcel C is 30 g heavier than Parcel B.



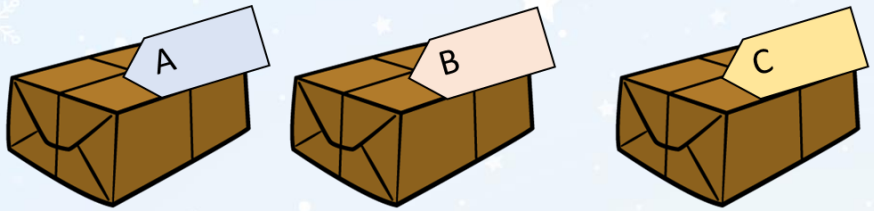
Parcel B weighs 50 g.
Parcel C weighs 80g.

Parcel B and Parcel C together weigh 130 g.



$130 - 30 = 100$
$100 \div 2 = 50$

Parcel C is 30 g heavier than parcel B.



Parcel B weighs 50 g.
Parcel C weighs 80g.
Parcel A weighs 40 g.

Parcel A and Parcel B together weigh 90 g. $40 + 50 = 90$
Parcel B and Parcel C together weigh 130 g. $50 + 80 = 130$
Parcel A and Parcel C together weigh 120 g. $40 + 80 = 120$

Could you design a similar problem to challenge your friends?

Rosie is posting 10 greetings cards.

She writes the house number on the front of each envelope.

Here are the house numbers.

1	4	5	9	10
13	32	35	38	39

Have a think

Rosie posts 2 cards every day for 5 days.

The sum of the house numbers on each day is shown in the table.

Mon	Tue	Wed	Thu	Fri
45	14	48	39	40

Which cards could Rosie post on each day?

1	4	5	9	10
13	32	35	38	39

Have a think

Mon	Tue	Wed	Thu	Fri
45	14	48	39	40
10 , 35	1 , 13	9 , 39	1 , 38	1 , 39
13 , 32	4 , 10	10 , 38	4 , 35	5 , 35
	5 , 9	13 , 35		

Which cards could Rosie post on each day?

1	4	5	9	10
13	32	35	38	39

Mon	Tue	Wed	Thu	Fri
45	14	48	39	40
10 , 35	1 , 13	~~9 , 39~~	~~1 , 38~~	~~1 , 39~~
13 , 32	~~4 , 10~~	~~10 , 38~~	~~4 , 35~~	~~5 , 35~~
	5 , 9	~~13 , 35~~		

Which cards could Rosie post on each day?

1	4	5	9	10
13	32	35	38	39

Mon	Tue	Wed	Thu	Fri
45	14	48	39	40
~~10 , 35~~	~~1 , 13~~	9 , 39	1 , 38	~~1 , 39~~
13 , 32	4 , 10	~~10 , 38~~	~~4 , 35~~	5 , 35
	5 , 9	~~13 , 35~~		

Are there any other possible combinations?