

Coupon Combinations

ACTIVITY

Lawrence, Charlotte, Emeli, and Simon spend a morning at the amusement arcade playing video games and minisports. They each win coupons that can be swapped for prizes.

When they finish playing, they add up their own coupons:

Player	Number of coupons
<i>Lawrence</i>	<i>285</i>
<i>Charlotte</i>	<i>523</i>
<i>Emeli</i>	<i>448</i>
<i>Simon</i>	<i>396</i>

To win a prize, they need 800 coupons. No one has enough coupons to win a prize, so they decide to join together in pairs.

1. Lawrence and Simon look at their totals:

That's 285 from me and 396 from you.



396 is very close to 400. That might make it easier.

Use Simon's idea to work out the total number of their coupons.

2. Charlotte and Emeli have to add 523 and 448:



We could start with 523 and add on the 400 first.

- a. Work out Charlotte and Emeli's total by adding on 400, then 40, and then 8.
 - b. Find another way to work out Charlotte and Emeli's total.
3. How should the friends pair up so that they get two prizes altogether?