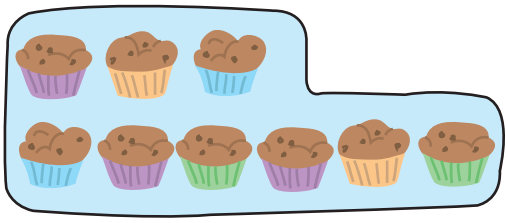
Crafty Combinations

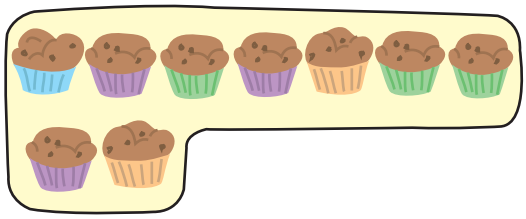
You need ☑ a photocopy of the combinations copymaster

Activity

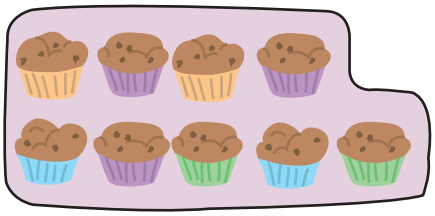
Sometimes when you need to add several numbers together, you can combine some of the numbers to make the problem easier.
For example, for 3 + 5 + 2 + 6 + 7 + 4, you might notice that:



3 + 6 = 9



7 + 2 = 9

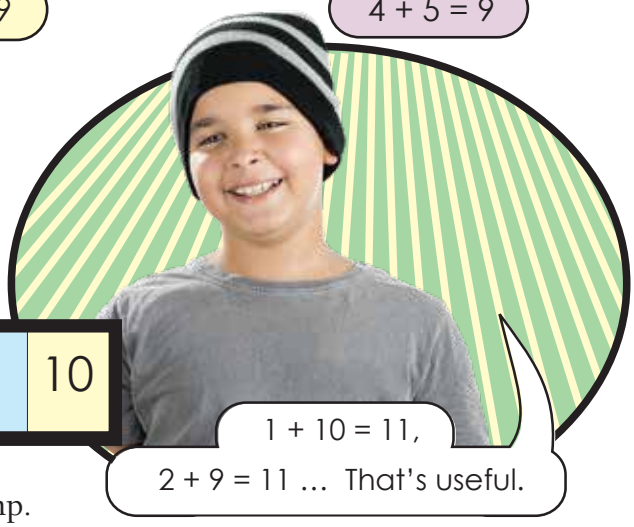


4 + 5 = 9

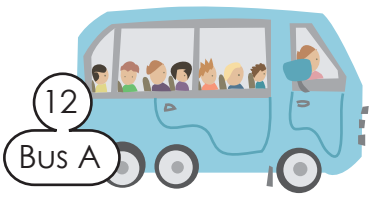
So 3 + 5 + 2 + 6 + 7 + 4 = 3 x 9, which equals 27.
The pairs of numbers combine to make exact nines.
Use combining to help you solve the problems below.

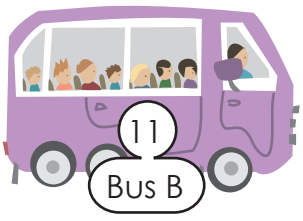
1. What does the first row of numbers on your hundreds board add up to?

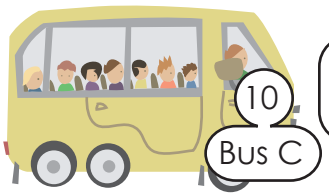
1	2	3	4	5	6	7	8	9	10

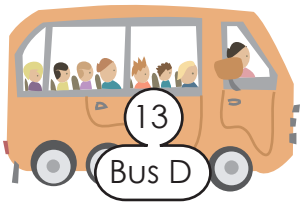


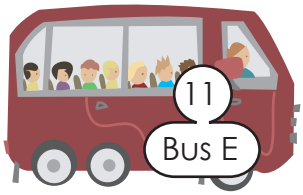
2. 88 students at Shackleton School are going to camp.
Mrs Gibb counts the numbers of students sitting in each minibus:

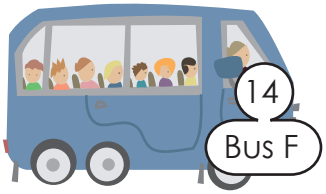


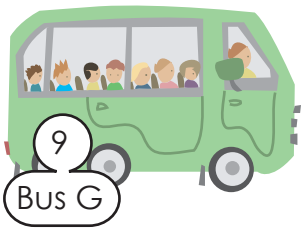


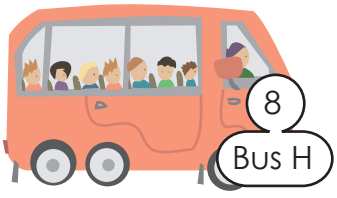












Are all of the students on board?

3. Your team has collected these tins of donations for a local street appeal.
How much money has your team collected altogether?

4. Use a combining strategy to solve the following problem.
Explain your answer.

$14 + 800 - 1 + 555 + 986 - 999 + 445 + 200 = \square$

5. Use a combining strategy to solve these problems:

a. $\frac{1}{2} + 1 + 1\frac{1}{2} + 2 + 2\frac{1}{2} + 3 + 3\frac{1}{2} = \square$

b. $0.1 + 1.2 + 0.8 + 0.5 + 1.6 + 1.5 + 0.4 + 1.9 = \square$

c. $10 - \frac{3}{4} - \frac{2}{5} - \frac{2}{3} - \frac{4}{7} - \frac{3}{5} - \frac{1}{4} - \frac{1}{3} - \frac{3}{7} = \square$

6. a. What is true about *all* the examples in this activity that makes combining a good strategy to use?

b. Will combining be a useful strategy for *all* addition and subtraction problems?