

Slip-sliding Away

You need a classmate

Activity

- ① Middleton Area School has 390 students. This winter, $\frac{2}{3}$ of the school are going on a ski trip to the Emerald Ski Field.
- How many students are going to the ski field?
 - Draw a diagram to show how you worked this out.

I like using this sort of diagram:



- Find a different way to work out this problem.
- ② The students have 40 adults going with them as supervisors.
- How many people are going altogether?
 - How many 50-seater buses will the school need?
- ③
- The students each pay \$10 for the bus trip. The adults go free. How much is the school paying for bus hire?
 - Some of the adults have their own skis, and some don't need lessons. Some won't be skiing at all. All the students are paying for the package deal, which includes a lift pass, ski hire, and a lesson.

	Number of adults	Cost per person	Number of students	Cost per person
Package deal	20	\$60	260	\$30
Lift pass and ski hire	5	\$50		
Lift pass only	5	\$30		

How much will the day's skiing cost altogether? (Don't include the bus fares in this.)

Discuss with a classmate the strategies you used to work this out.

- ④ At the Emerald Ski Field, there are 3 chairlifts on the beginners' slope. On the day the students from Middleton Area School go skiing:

The Kākāriki chairlift carries 9 000 people.

The Whero chairlift carries $\frac{1}{3}$ of the number of people on the Kākāriki chairlift.

The Mā chairlift carries $\frac{1}{3}$ of Kākāriki's numbers plus $\frac{1}{2}$ of Whero's numbers.



- a. i. How many people does each chairlift carry that day?
ii. How many people do these chairlifts carry altogether that day?
- b. i. All 3 chairlifts have the same number of chairs. That day, the chairlifts are full all day and make the same number of trips up the slope.

What does this tell you about how many people a chair on each of the chairlifts can hold?

- ii. If Whero's chairs each hold 2 people, how many people can fit in a Mā chair and how many in a Kākāriki chair?

Chairlift	People in each chair
Kākāriki	
Whero	
Mā	

Discuss with your classmate how you worked this out.