Taking Turns
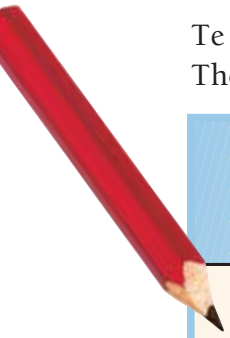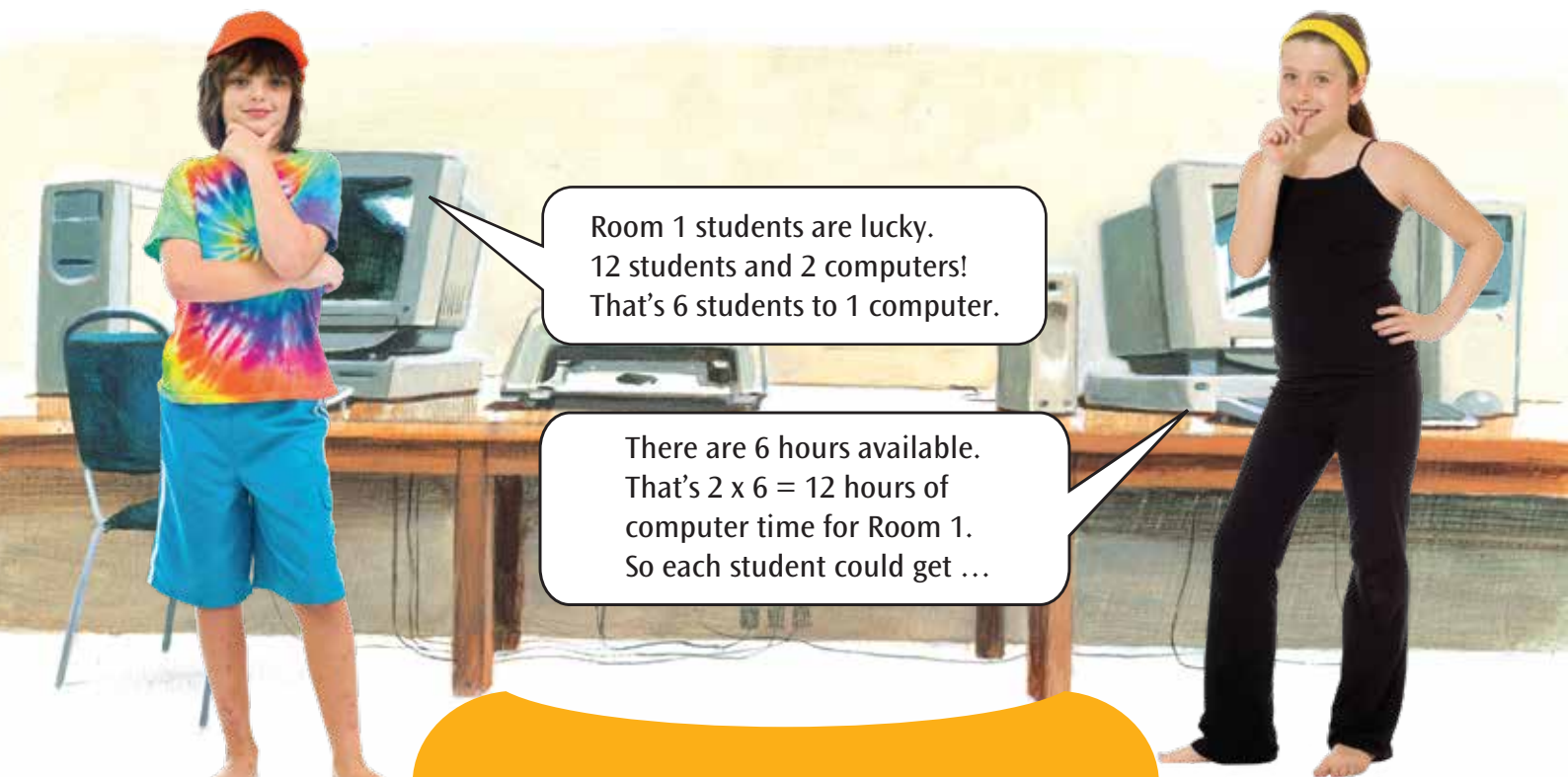
Activity

Te Rama and Tina are investigating computer use in their school.
They start by recording current usage in a table.

| Room	Number of students in the class	Number of computers in the classroom	Number of students on a computer at a time	Length of time for a turn on the computer
1	12	2	1	20 minutes
2	12	1	2	40 minutes
3	24	2	1	20 minutes
4	24	4	1	20 minutes
5	30	3	2	20 minutes

1. If the students only have 1 turn a day, what is the total time each computer is in use in each classroom? Explain your answers.

2. The classroom computers are available from 9.00 a.m. to 3.00 p.m., including playtime and lunchtime.

   Use the table above to help you work out how much computer time the students in each classroom could have each day. Show how you got your answers.

Room 1 students are lucky.
12 students and 2 computers!
That's 6 students to 1 computer.

There are 6 hours available.
That's 2 x 6 = 12 hours of
computer time for Room 1.
So each student could get …

Using relationships to calculate amounts
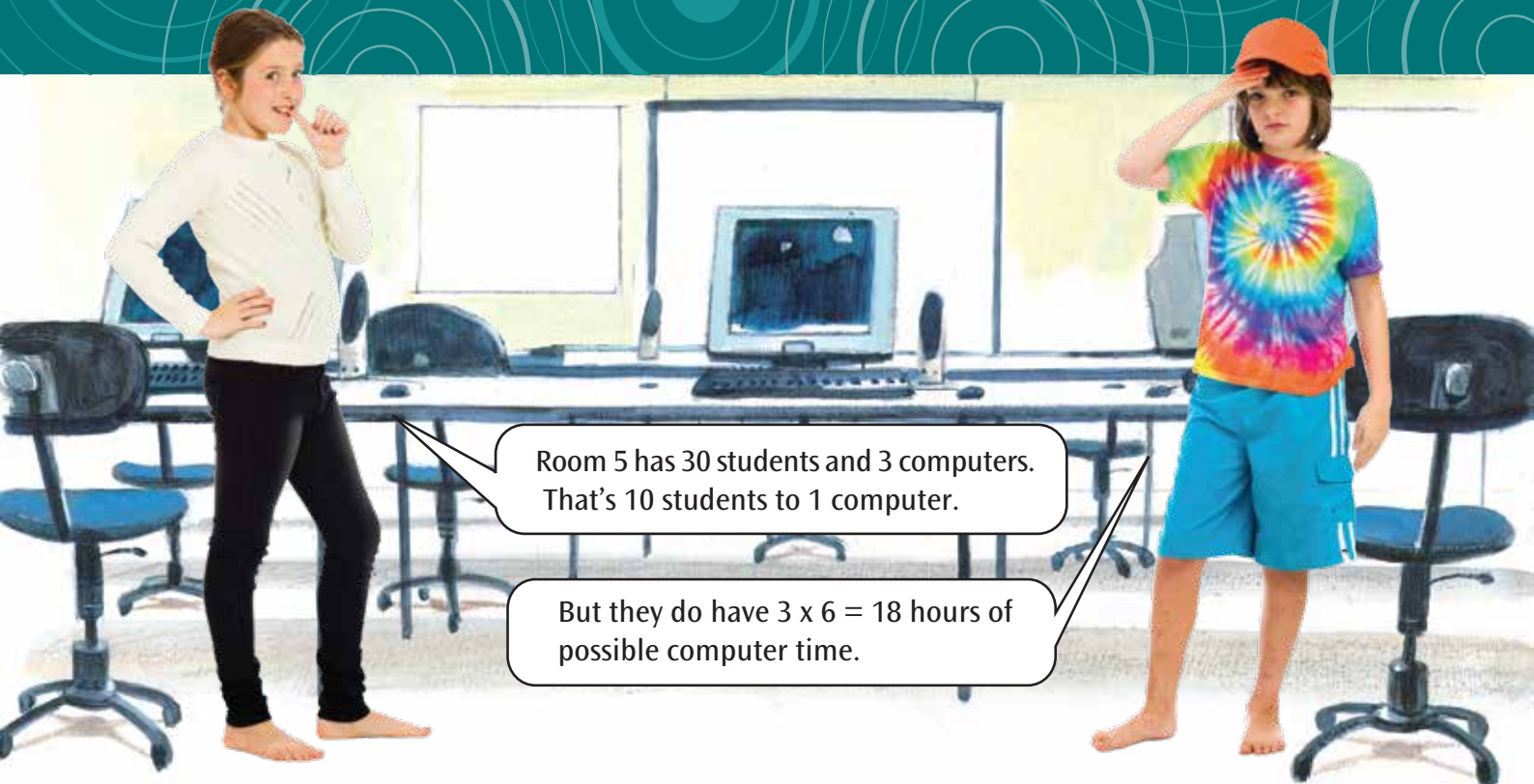
> Room 5 has 30 students and 3 computers. That's 10 students to 1 computer.

> But they do have 3 x 6 = 18 hours of possible computer time.

3. If the computers were in use from 9 a.m. to 3 p.m., which students would get the most computer time?
Explain your answer and then discuss this with your classmate.
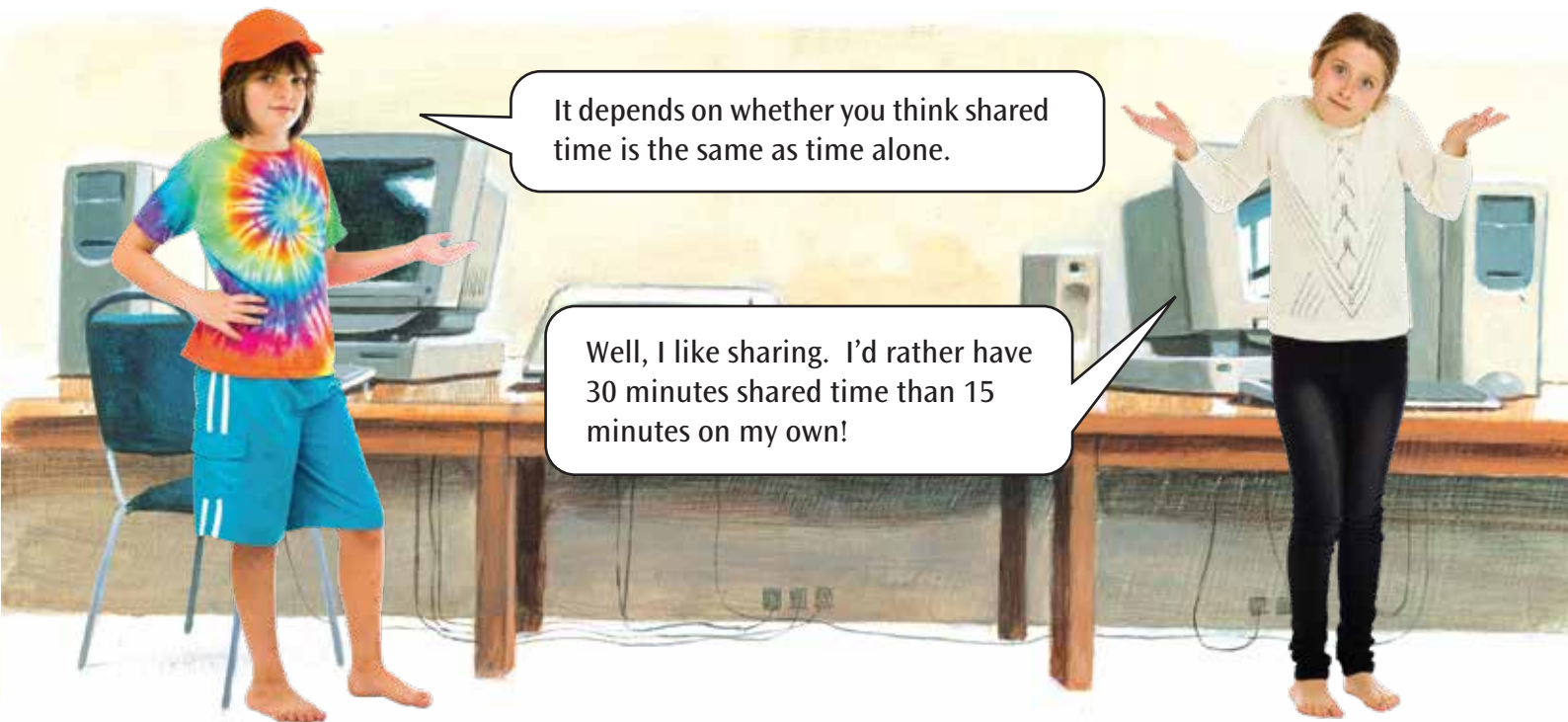
> It depends on whether you think shared time is the same as time alone.

> Well, I like sharing. I'd rather have 30 minutes shared time than 15 minutes on my own!

4. Is there a fairer way to share the school's computers?
Discuss this with your classmate.

Investigation

With a classmate, research computer usage in your classroom and in your school.
You may need to make a table with headings like the one Te Rama and Tina made.

Do you have a fair computer sharing system at your school?
If not, can you think of a way to make it fair?

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