Lights Out

Activity One

It is Monday night, and some of the adults are worried.

I've just looked in the tents. Most of the kids are still awake.
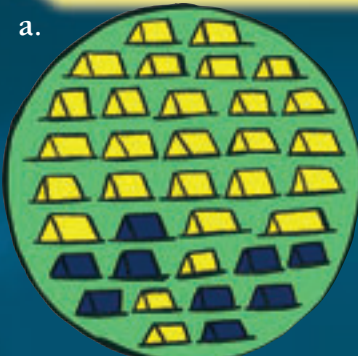
There are torches on everywhere, and it's 9 o'clock.

Each person is alone in their own tent, but they're still not sleeping.

Don't worry. They always stay up too late on the first night. It will change as the week goes by.
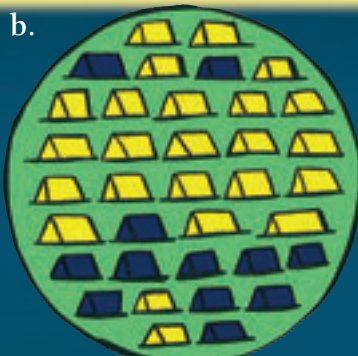
Ms Pēhi, the teacher, says she will talk to the students in the morning about getting enough sleep. The adults go back to their tents. Ms Pēhi checks on the tents every half-hour.
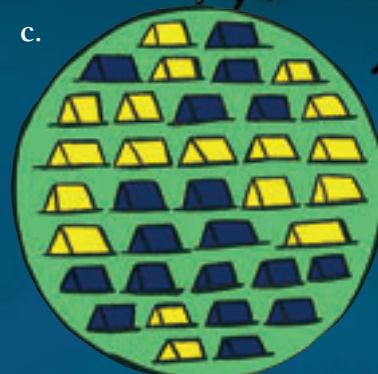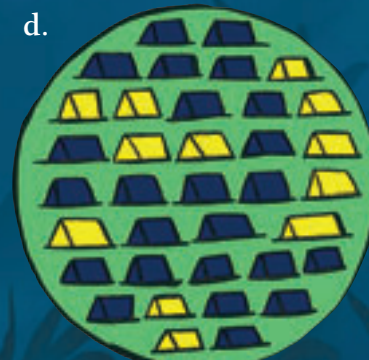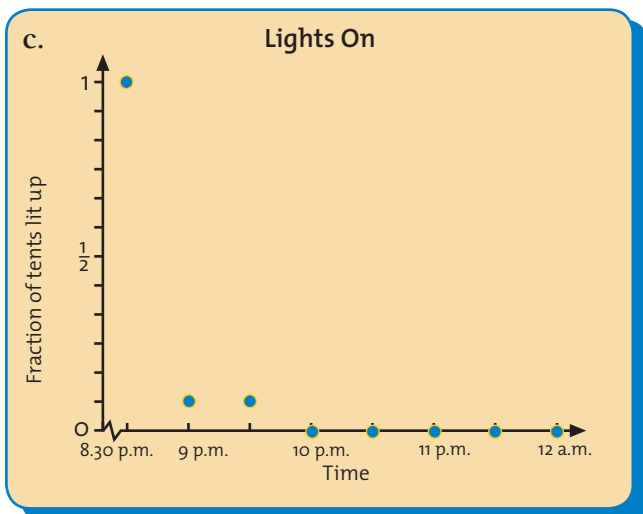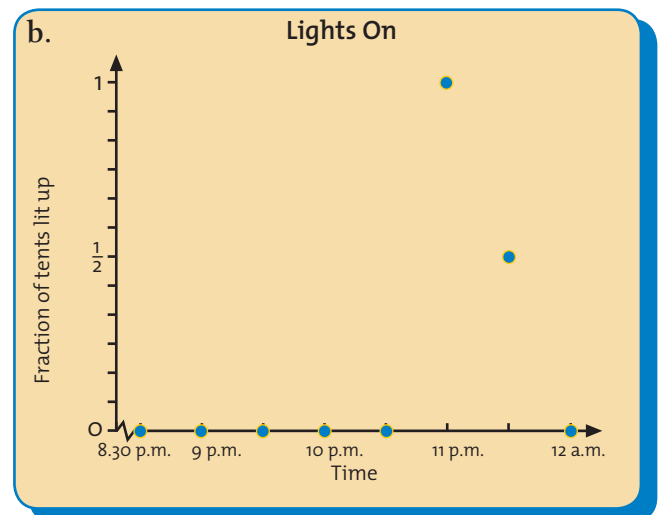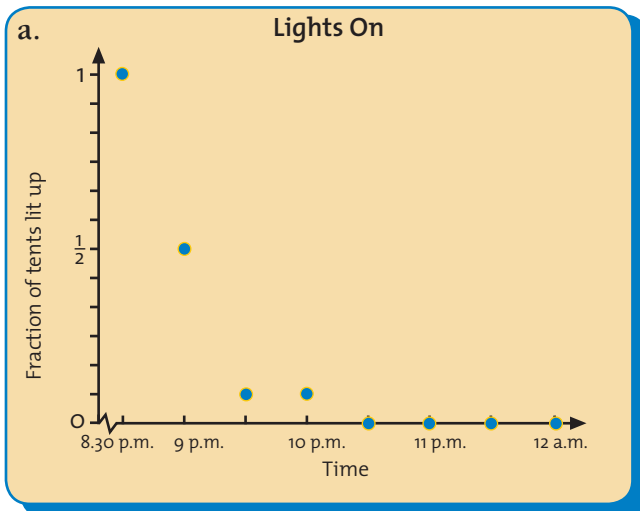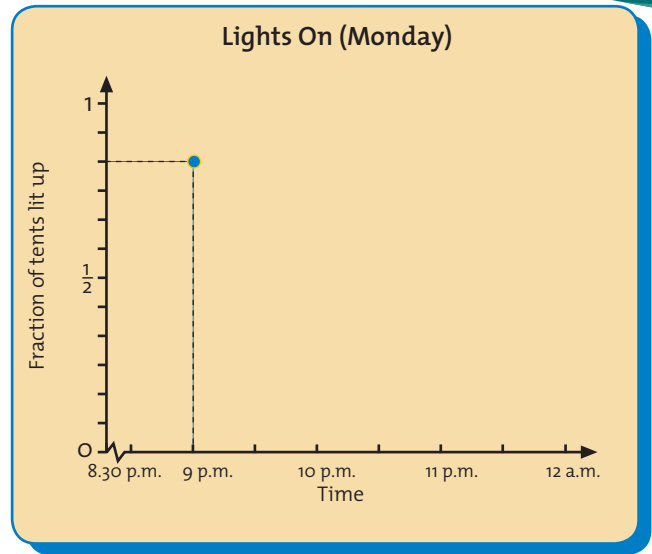
a.

9.30 p.m.

b.

10 p.m.

c.

10.30 p.m.

d.

11 p.m.

1. What fraction of the tents still have torches on at each time shown here?

2. Only nine tents still have torches on at 11.30 p.m. What fraction is that?

3. One-sixth of the tents are still lit up at midnight. How many people is that?

Finding fractions of whole numbers

Activity Two

At breakfast on Tuesday morning, Ms Pēhi shows the students this graph.

1. The point shows what fraction of the tents were lit up at 9 p.m.
   What fraction was that?

2. Ms Pēhi gives the students the data on page 12 and tells them to draw and complete her graph, using that data. What should their graph look like?

3. Here are graphs of the lit tents from Tuesday, Wednesday, and Thursday nights.
   Which graph matches each night? Why? (See the clues in the illustration below.)

Lights On (Monday)

Fraction of tents lit up

1

$\frac{1}{2}$

O

8.30 p.m.   9 p.m.   10 p.m.   11 p.m.   12 a.m.

Time

a. **Lights On**

Fraction of tents lit up

1

$\frac{1}{2}$

O

8.30 p.m.   9 p.m.   10 p.m.   11 p.m.   12 a.m.

Time

b. **Lights On**

Fraction of tents lit up

1

$\frac{1}{2}$

O

8.30 p.m.   9 p.m.   10 p.m.   11 p.m.   12 a.m.

Time

c. **Lights On**

Fraction of tents lit up

1

$\frac{1}{2}$

O

8.30 p.m.   9 p.m.   10 p.m.   11 p.m.   12 a.m.

Time

Wednesday was the day of the tramp. Everyone was very tired.

On Tuesday night, the students seemed to have learned from the night before.

The camp concert is tonight. It finishes at 10.30 p.m.

Thursday morning ...