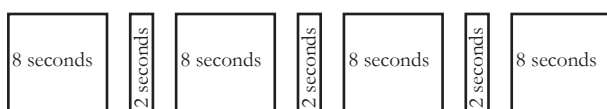# Slide Shows

Activity

Erana and Tama are making computer slide shows of their class camping trip.

I want to show each photo for 8 seconds. Then I want a special effect that lasts for 2 seconds before the next photo comes up.

Tama draws a diagram of a slide show with 4 photos.

| 8 seconds | 2 seconds | 8 seconds | 2 seconds | 8 seconds | 2 seconds | 8 seconds |

1. Use Tama's diagram to help complete this table:

8 + 2 + 8 + 2 + 8 + 2 + 8 = 38. That's 38 seconds for 4 slides.

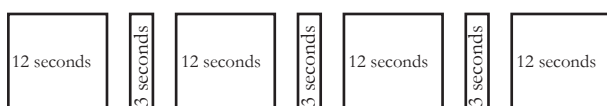| Number of photos in the slide show	Time taken (seconds)
1	
2	
3	
4	8 + 2 + 8 + 2 + 8 + 2 + 8 = 38
5	

| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |

10 photos is (10 x 8) + (9 x 2) seconds, so 100 photos is ...

2. a. Suppose Tama's slide show had 9 photos. Find a short-cut way to predict how long the slide show would take.
   b. How long would a slide show with 100 photos take?
   c. Suppose the slide show takes 1 minute and 18 seconds. How many photos are there in the slide show? Explain how you got your answer.

3. Erana draws a diagram for her slide show:

| 12 seconds | 3 seconds | 12 seconds | 3 seconds | 12 seconds | 3 seconds | 12 seconds |

   a. Write down a way that Erana can work out the total time for the slide show with any number of photos.
   b. Erana makes a slide show that lasts for 297 seconds. How many photos does she show?

Finding and using generalisations for number patterns