## Skateboardathon

Yeu-Ching and Conrad entered a skateboardathon to raise money for a new skateboard ramp in town. They each had one sponsor.
They each raised $\$ 1$ for the first hour they skated, $\$ 3$ for the second hour, $\$ 5$ for the third hour, $\$ 7$ for the fourth hour, and so on.

1. a. Draw up the first 10 hours in a table like this:

b. How much money could each boy raise for 10 hours' skateboarding?
c. What pattern can you see in the running total column?
d. Write a rule for the total amount raised.
e. Use your rule to work out how much they could each raise for 24 hours' skateboarding.
f. How many hours would it take to raise $\$ 900$ each?


Finding and using rules from patterns

2. A month later, there was another skateboardathon. This time, the sponsorship money was in even number amounts. Each participant raised $\$ 2$ for the first hour, $\$ 4$ for the second, $\$ 6$ for the third, and so on.
a. Make a table to show how much Yeu-Ching and Conrad had each raised at the end of the first 10 hours of skateboarding.
b. Write a rule for the total amount raised and use it to work out how much they could each raise after 48 hours of skateboarding.
c. How many hours of skateboarding would it take to raise \$2,550 each?

