

Getting Started

Patterns in Phone Chains

48 Grade 5 students entered a story-writing contest.
The judge tells Jasleen the results after school.
Jasleen volunteers to spread the news.

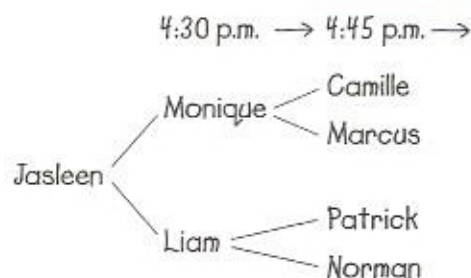


Jasleen's Phone Chain

At 4:30 p.m., I phone two students.

At 4:45 p.m., those two students
each call two other students.

At 5:00 p.m., those four students
each call two other students.
Nobody is called twice.



? At what time will all 48 students know the winners of the story-writing contest?

- A. At 4:30 p.m., how many new calls are made?
- B. How many new calls are made at 4:45 p.m.?
How many students know the winners after the calls are made at 4:45 p.m.?

Time	Number of new calls made	Total number of students who know
4:30 p.m.		
4:45 p.m.		

- C. At 5:00 p.m., how many new calls are made?
How many students know the winners after the calls are made at 5:00 p.m.?