

Passing the Time

Linda's Grandmother has a grandfather clock. It chimes once at quarter past the hour and once at quarter to the hour. It chimes twice on the half hour. On the hour it chimes the hour. For example, at 2:00 it chimes twice, at 4:00 it chimes four times.

1. How many times does the clock chime in all from 5:00 PM up to and include 5:45 pm? Justify your answer.

2. How many times does it chime from 9:00 PM up to and including 9:45 PM? Explain your answer.

3. Linda has trouble sleeping at her grandmother's house because the clock chimes all through the night. If Linda goes to bed at 9:00 PM and gets up at 7:00 AM, how many times will the clock chime? Show or tell how you found your answer.