

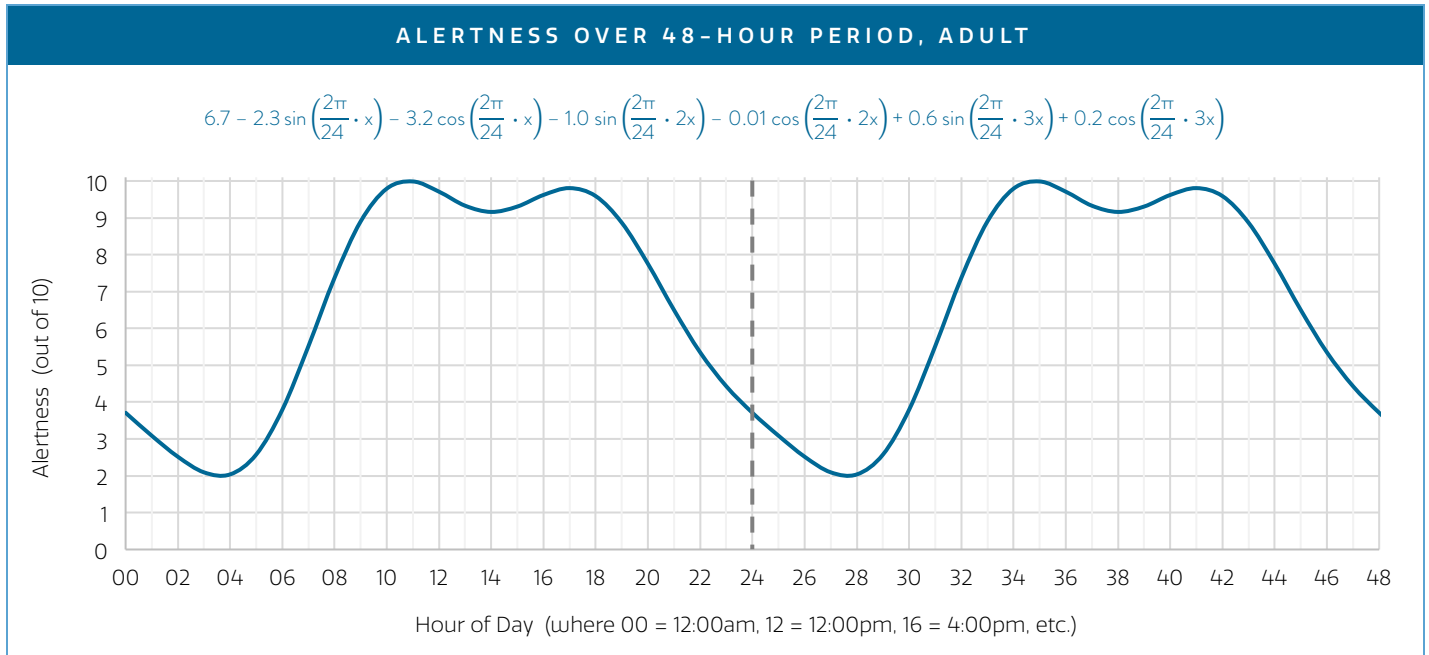
Name _____

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PART ONE: CLOCK IN

- Most humans feel sleepy during some parts of the day and wide-awake during others. This is due to the body's circadian rhythm, the 24-hour cycle that regulates how alert we feel. For a typical adult, alertness can be roughly modeled by the function below.

What are the key features that you notice in the graph?

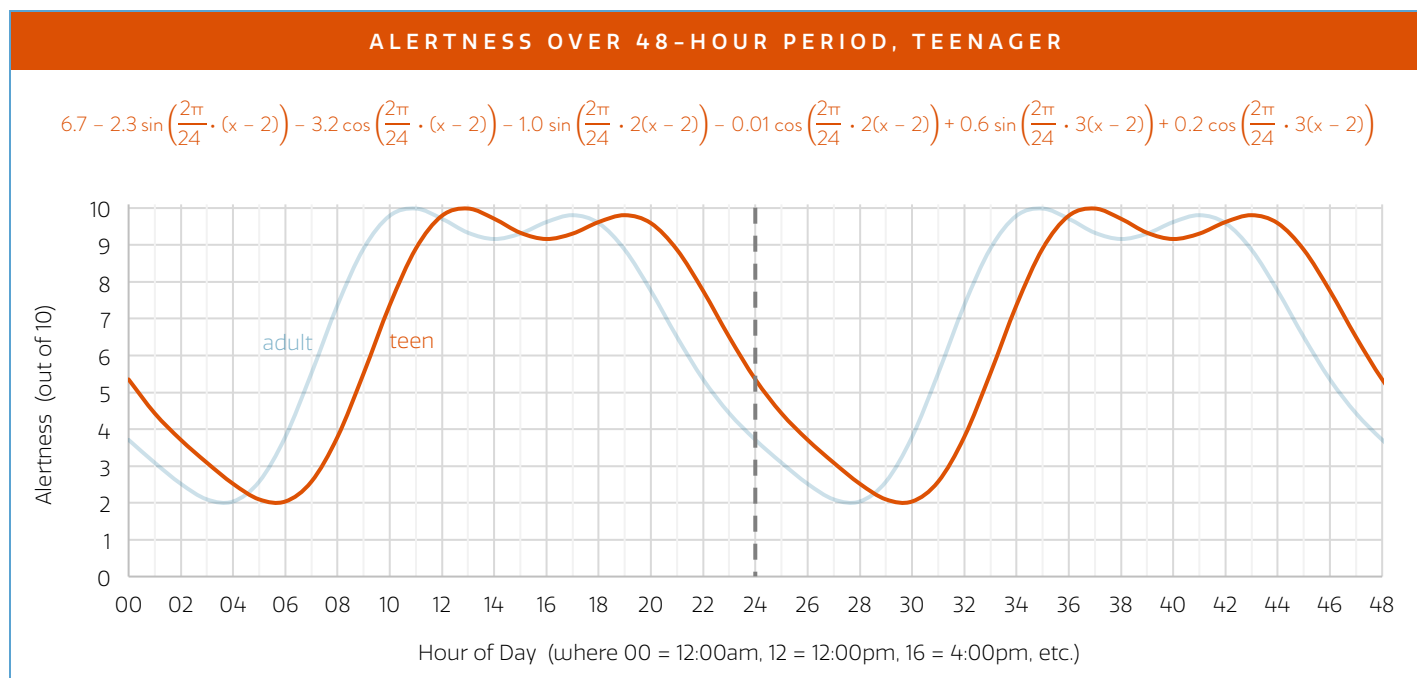


- In many countries, the typical workday begins at 9:00am and ends at 5:00pm. Considering the needs of both workers and employers, does this seem like a good schedule when it comes to alertness? Explain.

PART TWO: YOU SNOOZE, YOU...WIN?

- 3 Teenagers have a different circadian rhythm than adults do; for the typical teen, alertness is roughly modeled by the function below. Teenagers also have a different schedule. While the typical workday runs from 9:00am to 5:00pm, for middle and high schoolers, the typical school day runs from 7:30am to 3:00pm.

Based on the graph below, how is the alertness cycle different for teens and adults, and would you say that school starts at the optimal time? If so, why? If not, what time do you think would be better?



- 4 Many sleep experts believe that middle school and high school should start no earlier than 8:30am. However, many others argue that changing the start time of school would be too disruptive to parents, businesses, and others. Watch the video about this debate.

Then describe some of the pros and cons of starting school later in the morning. If you were a decision maker for your school/district, what start time would you recommend, and how would you balance the needs of both adults and students?