On the nearby planet of Cosinia, the number of hours of direct sunlight also varies sinusoidally throughout its year.

- On the 30th day, the amount of sunlight reaches a peak of 16 hours.
- On the 80th day, the amount of sunlight is at its minimum of 4 hours.

Let C(d) represent the number of hours of daylight on the dth day.

c. [1 point] How many days are there on Cosinia per year? In other words, what is the period of the function C(d)?

Answer: _____ days

d. [4 points] Find a formula for the function C(d).

Answer: *C*(*d*) = _____