NOTE: Write solutions ON THIS SHEET (3-POINT DEDUCTION if not) and upload to Gradescope.

Fully justify your answers – give exact values not decimal approximations.

Rose boarded a car of a Ferris wheel at the 6 o'clock position. The wheel has a diameter of 12 meters with its center at 8 meters above the ground. Each clockwise revolution of the wheel takes 5 minutes.

1.	Determine the periodic function, $h(t)$, that models the height that Rose's car is above the
	ground with respect to time as it revolves.

$$h(t) = \underline{\hspace{1cm}} [6]$$

- 2. State the *equation* of the midline from Question 1. [1]
- 3. Given $f(x) = 2x^2 9x 5$, express the following as *ordered pairs* using integers or fully reduced fractions as appropriate. If it does not exist, show why not.
 - a. y-intercept(s), if any

[1]

b. x-intercept(s), if any