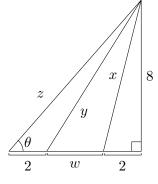
1. [9 points] Use the following diagram to answer the questions for this problem. Give your answers in **exact** form in terms of sin, cos, tan, and θ . Do not assume θ is a specific value.



a. [2 points] Find the length of x.

b . [2 points]	Find the length of z .	<i>x</i> =
c . [3 points]	Find the length of w .	<i>z</i> =
d . [2 points]	Find the length of y in terms of w .	<i>w</i> =
		<i>y</i> =

2. [6 points] Determine whether the following functions are even, odd, or neither even nor odd. Circle your answer. You do no need to show any work for this problem.

a. [2 points] The function $x^2 + x + 1$ is

EVENODDNEITHER**b.** [2 points]The function $\frac{x^4+1}{x^3-x}$ isEVENODDNEITHER**c.** [2 points]The function $3x \sin(x)$ isEVENODDNEITHER