

1. A transverse wave traveling on a string is described by the expression $y(x,t) = 1 \text{ cm} \sin(1.3x/\text{m} - 10t/\text{s})$, where m=meters, cm=centimeters, and s=seconds. What is the frequency, f , of this wave?

A	20 Hz	F	1.6 Hz
B	1.3 Hz	G	1.59 Hz
C	10 Hz	H	20 Hz
D	628 Hz	I	0.314 Hz
E	12 Hz	J	314 Hz

2. For the wave in problem 1, what is the period, T , of the wave?

A	0.1 s	F	0.159 s
B	10 s	G	7.69 s
C	0.0318 s	H	76.9 s
D	0.769 s	I	0.628 s
E	31.4 s	J	1 s

3. For the wave in problem 1, what is the wavelength, λ , of the wave?

A	1.3 m	F	3.2 mm
B	2.42 m	G	0.13 m
C	13 m	H	13 mm
D	0.769 m	I	4.83 m
E	7.69 m	J	8.17 m

4. For the wave in problem 1, what is the direction the wave is traveling?

A	- x direction	F	- z direction
B	+x direction	G	it's not moving
C	up	H	cannot be determined
D	+ y direction	I	- y direction
E	+ z direction	J	down

5. For the wave in problem 1, what is the transverse acceleration of the wave at time $t=0$ and position $x=1\text{m}$?

A	0.26 m/s^2	F	0.1 m/s^2
B	-10 m/s^2	G	9.87 m/s^2
C	100 m/s^2	H	98.7 m/s^2
D	-3.14 m/s^2	I	0.0987 m/s^2
E	3.14 m/s^2	J	-0.963 m/s^2