

Name: _____

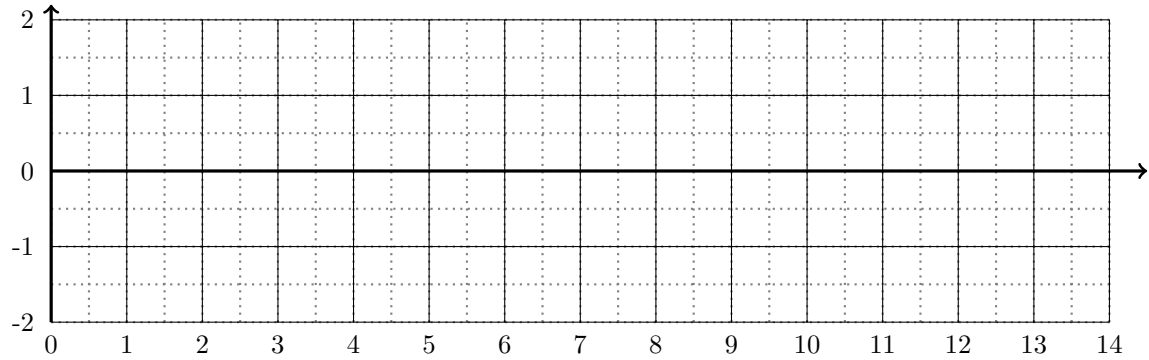
Date: _____

Period: _____

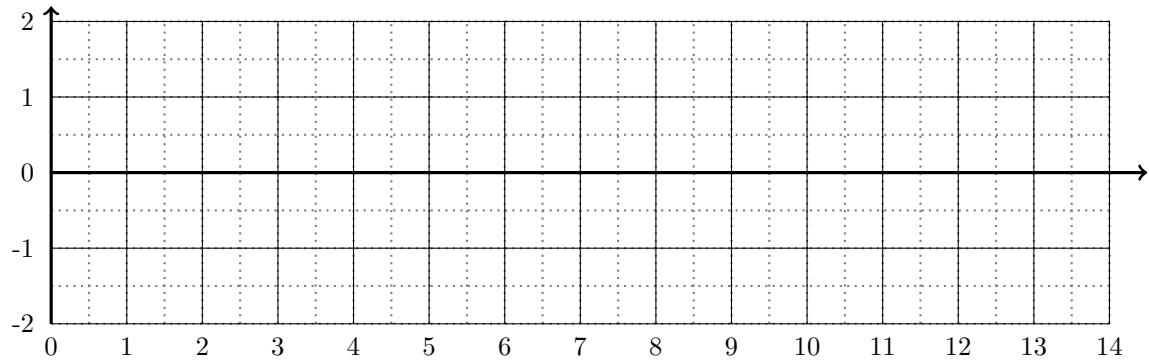
Drawing a Wave

1. Draw each of these three transverse waves:

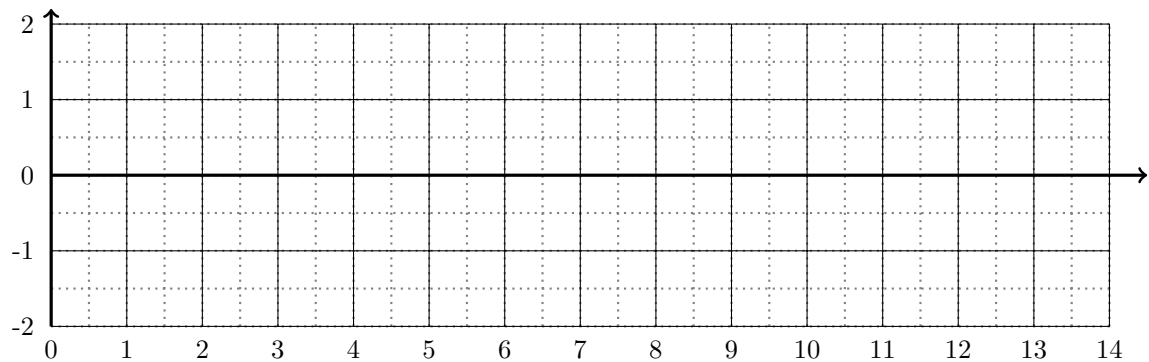
Wave #1 Amplitude = 1 cm; Wavelength = 2 cm



Wave #2 Amplitude = 2 cm; Wavelength = 4 cm



Wave #3 Amplitude = 1.5 cm; Wavelength = 3 cm



2. On each wave, label **one** of each of the following:

- ☐ crest
- ☐ trough
- ☐ amplitude
- ☐ wavelength

Name: _____

Date: _____

Period: _____

3. How can you tell that each of the waves you drew are transverse?

4. If all of these waves were traveling at the same speed, which one would have the **highest frequency**?
How do you know?

5. Assume that each wave is traveling at 27 cm/s. Calculate the frequency of each wave. (Recall the equation $v = f\lambda$)

(a) Wave #1

Knowns/Unknowns

Plug & Chug

Answer w/ Units

(b) Wave #2

Knowns/Unknowns

Plug & Chug

Answer w/ Units

(c) Wave #3

Knowns/Unknowns

Plug & Chug

Answer w/ Units

6. Do your calculations in question 5 agree with your answer in question 4? Explain.