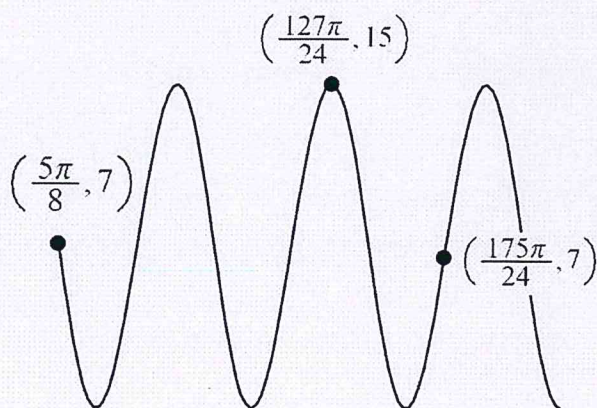


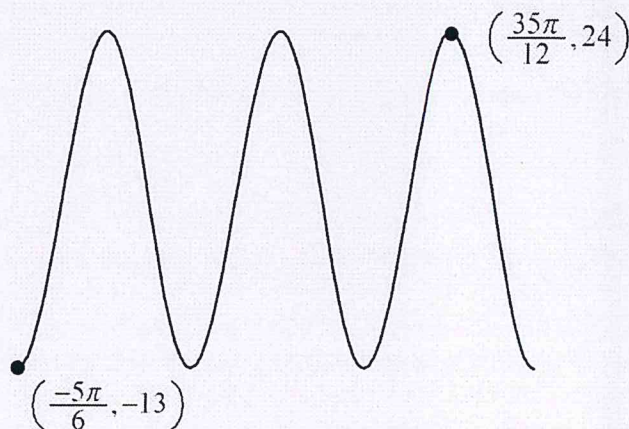
Find the EXACT period, amplitude, and equation for the midline for each Sine graph below.

1.



1.

2.



For 3 and 4 refer to the following information.

Flowers in Leta's Assortment by Color and Type:

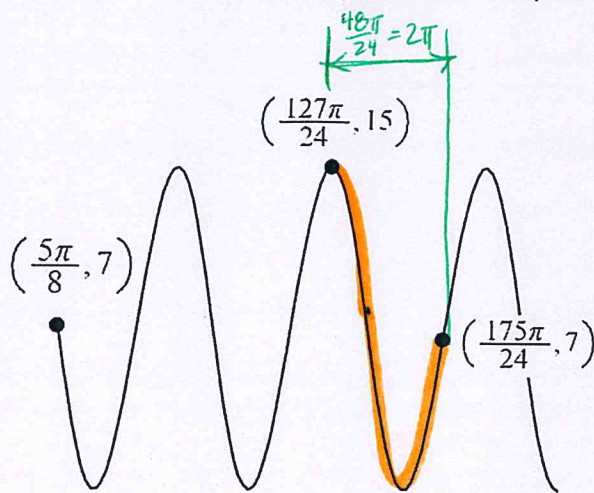
	Petunia	Rose	Zinnia	Total
Pink	6	6	4	16
Red	8	4	4	16
White	2	8	6	16
Total	16	18	14	48

3. Leta separates out the white flowers and picks one of them at random. What is the probability that the flower Leta picks is a rose? (Express your answer as a decimal or as a fraction, not as a percent.)

4. Leta wants to create a floral arrangement using two additional types of flowers, calla lilies and carnations. The ratio of calla lilies to carnations in the floral arrangement will be the same as the ratio of roses to petunias displayed in the table. If Leta uses 27 calla lilies, how many carnations will she use?

Find the EXACT period, amplitude, and equation for the midline for each Sine graph below.

1.



1.

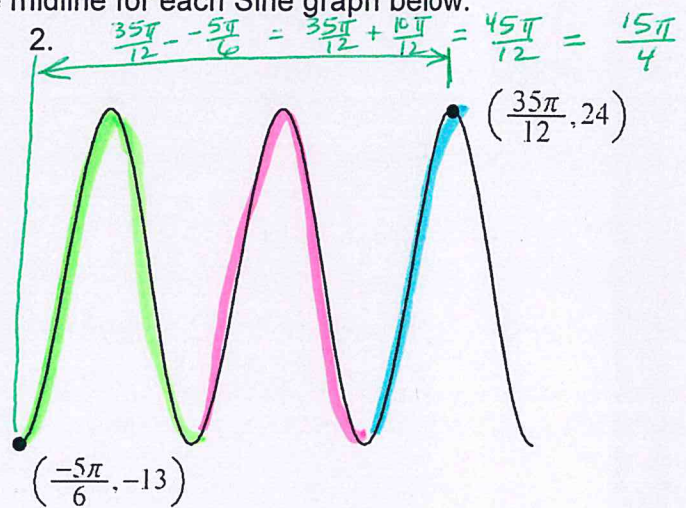
MIDLINE: $y=7$

Amplitude = $15-7=8$

period: $\frac{2\pi}{3/4} = 2\pi \cdot \frac{4}{3} = \frac{8\pi}{3}$

For 3 and 4 refer to the following information.

2.



MIDLINE: $y = \frac{24+(-13)}{2} = \frac{11}{2}$

Amplitude = $\frac{24-(-13)}{2} = \frac{37}{2}$

period: $\frac{15\pi/4}{2\frac{1}{2}} = \frac{15\pi/4}{5/2} = \frac{15\pi}{4} \cdot \frac{2}{5} = \frac{3\pi}{2}$

	Petunia	Rose	Zinnia	Total
Pink	6	6	4	16
Red	8	4	4	16
White	2	8	6	16
Total	16	18	14	48

Flowers in Leta's Assortment by Color and Type:

3. Leta separates out the white flowers and picks one of them at random. What is the probability that the flower Leta picks is a rose? (Express your answer as a decimal or as a fraction, not as a percent.)

$P(\text{pick rose if flower is white}) = \frac{\text{\# white roses}}{\text{\# white flowers}} = \frac{8}{16} = \frac{1}{2}$

4. Leta wants to create a floral arrangement using two additional types of flowers, calla lilies and carnations. The ratio of calla lilies to carnations in the floral arrangement will be the same as the ratio of roses to petunias displayed in the table. If Leta uses 27 calla lilies, how many carnations will she use?

$\frac{\text{calla lilies}}{\text{carnations}} = \frac{\text{roses}}{\text{petunias}}$

$\frac{27}{\text{carnations}} = \frac{18}{16}$

$\text{\# carnations} = 24$