Facts to be seen from example 4.2 in the textbook.
Consider a square waveform as seen in Figure 1.

![The square wave](image)

Figure 1: The square wave with $f = 0.5 \Rightarrow T = 2$, and amplitude $V = 2$.

Writing the Fourier series for this wave, we get:

$$x(t) = \sum_{k=1}^{\infty} \frac{4V}{k\pi} \sin\left(\frac{kw_0t}{k}\right)$$

$$k \text{ odd}$$
Letting $k$ take the following values: 1, 3, 5, 7 and 9 (first five values), we calculate the first five harmonics as seen in Figure 2.

Figure 2: First five harmonics

Let us see next what we get when we sum up the harmonics we calculated. In Figure 3, two and three harmonics are added.
Figure 3: First two and three harmonics added together

Let us add more harmonics... Figure 4 shows the first four and five harmonics added together. As one can see, the more harmonics we add, the better approximation we get.
Figure 4: Four and five harmonics added together