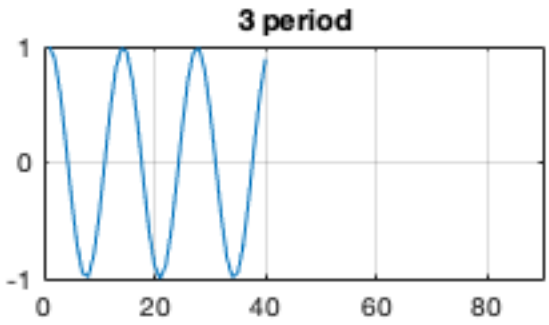
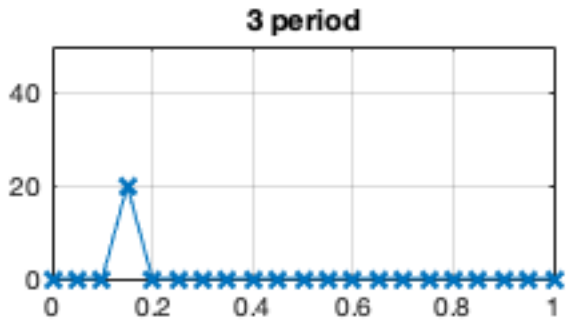
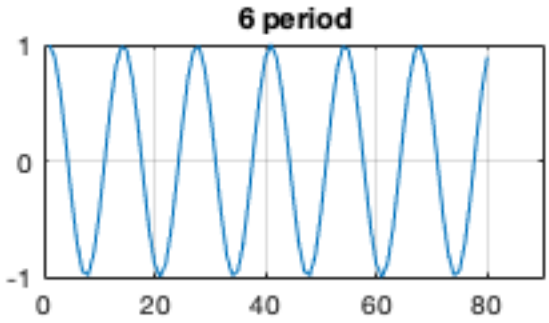
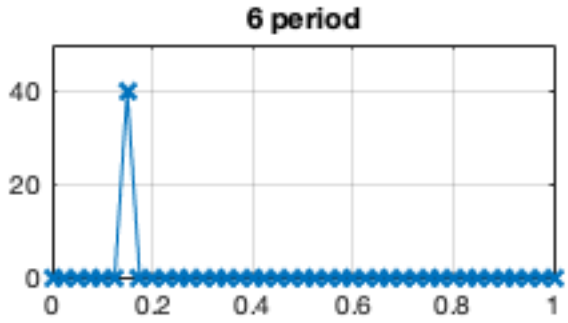
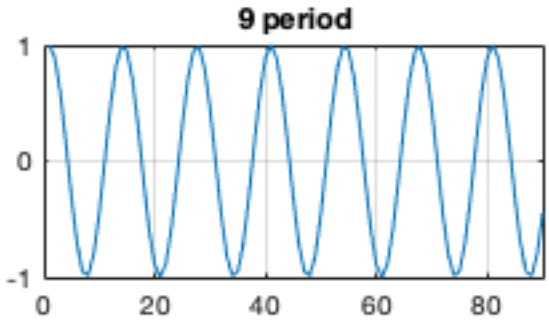
```
%### 4 УЛУЧШЕНИЕ РЕЗУЛЬТАТА БПФ С ПОМОЩЬЮ ДОБАВЛЕНИЙ ЧИСЛА ПЕРИУДОВ ###%
clear;
close all;

fs = 2;
ts = 0 : 1/fs : 20-1/fs;

x1 = cos(2*pi*0.15*ts);
x2 = [x1 x1];
x3 = [x1 x1 x1];

N1 = length(x1);
N2 = length(x2);
N3 = length(x3);

X1 = abs(fft(x1));
X2 = abs(fft(x2));
X3 = abs(fft(x3));

subplot(3, 2, 1);
plot(x1), grid on, title('3 period'), axis([0 90 -1 1]);
subplot(3, 2, 3);
plot(x2), grid on, title('6 period'), axis([0 90 -1 1]);
subplot(3, 2, 5);
plot(x3), grid on, title('9 period'), axis([0 90 -1 1]);

F1 = (0 : N1-1)*fs/N1;
F2 = (0 : N2-1)*fs/N2;
F3 = (0 : N3-1)*fs/N3;

subplot(3, 2, 2);
plot(F1, X1, '-x'), grid on, title('3 period'), axis([0 1 0 50]);
subplot(3, 2, 4);
plot(F2, X2, '-x'), grid on, title('6 period'), axis([0 1 0 50]);
subplot(3, 2, 6);
plot(F3, X3, '-x'), grid on, title('9 period'), axis([0 1 0 60]);
```

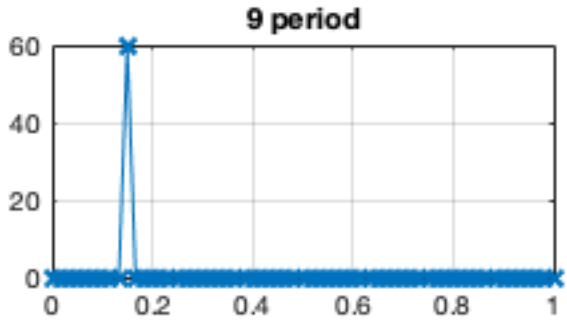












Published with MATLAB® R2018b