In MATLAB, for loops are used to execute a set of statements a specific number of times. The general syntax for a for loop in MATLAB is as follows:

```
for i = 1:5
disp(i);
end
```

Exercise Question:

plot the following sequence h versus n at r = 0.1 and m = 4 for the n range from -25 to 25.

$$h = \frac{1}{m} + \frac{r}{m + (\frac{4}{\pi} - 1)}, if n = 0$$

$$h = \frac{r}{m} * [2\cos\left(\frac{\pi(1+r)}{4r}\right) - \cos\left(\frac{\pi(1-r)}{4r}\right)], if \ n = \pm\frac{m}{4r}$$

$$h = \frac{\left(4rn\cos\left(\frac{n\pi(1+r)}{m}\right)\right) + \left(m\sin\left(\frac{n\pi(1-r)}{m}\right)\right)}{\left(1 - \left(\frac{4rn}{m}\right)^2\right)nm\pi}$$

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