Algorithm 1 Answer to Question 1 (pseudo-code)

$\alpha \leftarrow 0.35$
$\delta \leftarrow 0.06$
$\sigma \leftarrow 0.20$
$k^* \leftarrow \left(\frac{\sigma}{\delta}\right)^{\frac{1}{1-\alpha}}$

$k_1 \leftarrow 0.5 \cdot k^*$
for $t \leftarrow 1$ to 50 **do**
  $y_t \leftarrow k_t^{\alpha}$
  $i_t \leftarrow \sigma y_t$
  $k_{t+1} \leftarrow (1-\delta)\, k_t + i_t$
end for

return k_{51}/k^*

Algorithm 2 Answer to Question 1 (Matlab implementation)

```
clear all;

alpha = 0.35;
delta = 0.06;
sigma = 0.20;
kstar = (sigma/delta)^(1/(1-alpha));

k(1) = 0.5*kstar;
for t = 1 : 50
    y(t) = k(t)^alpha;
    i(t) = sigma*y(t);
    k(t+1) = (1-delta)*k(t) + i(t);
end

disp(k(51)/kstar)
```

Algorithm 3 Answer to Question 2 (pseudo-code)

$\alpha \leftarrow 0.35$
$\delta \leftarrow 0.06$
$\sigma \leftarrow 0.20$
$k^* \leftarrow \left(\frac{\sigma}{\delta}\right)^{\frac{1}{1-\alpha}}$

$k_1 \leftarrow 0.5 \cdot k^*$
for $t \leftarrow 1$ to 50 **do**
  $y_t \leftarrow k_t^\alpha$
  $i_t \leftarrow \sigma y_t$
  $c_t \leftarrow y_t - i_t$
  $k_{t+1} \leftarrow (1-\delta)\, k_t + i_t$
  if $t \geq 2$ **then**
    $g_{t-1} = \frac{y_t}{y_{t-1}} - 1$
  end if
end for

plot $\{t, c_t\}_{t=1}^{50}$ and $\{t, i_t\}_{t=1}^{50}$ on the same vertical axis
plot $\{t, y_t\}_{t=1}^{50}$ and $\{t, g_t\}_{t=1}^{49}$ on separate vertical axes

Algorithm 4 Answer to Question 2 (Matlab implementation)

```
clear all;

alpha = 0.35;
delta = 0.06;
sigma = 0.20;
kstar = (sigma/delta)^(1/(1-alpha));

k(1) = 0.5*kstar;
for t = 1 : 50
    y(t) = k(t)^alpha;
    i(t) = sigma*y(t);
    c(t) = y(t) - i(t);
    k(t+1) = (1-delta)*k(t) + i(t);
    if t >= 2
        g(t-1) = y(t)/y(t-1) - 1;
    end
end

plot(1:50,c,1:50,i);
legend('c','i');

figure;
plotyy(1:50,y,1:49,g);
legend('y','g');
```