```
> p1 := q -> q^(-1/ε);
  p2 := q -> α - β·q^δ;
  p3 := q -> α - β·ln(q);
  p[1] := p1(q[1]);
  p[2] := p2(q[2]);
  p[3] := p3(q[3]);

  for i from 1 to 3 do
  pi[i] := (p[i]-c)q[i];
  end do;

  for j from 1 to 3 do
  foc[j] := diff(pi[j], q[j]);
  qm[j] := solve(foc[j], q[j]);
  qqm[j] := simplify(qm[j]);
  end do;

  pm[1] := p1(qqm[1]);
  pm[2] := p2(qqm[2]);
  pm[3] := p3(qqm[3]);

  for k from 1 to 3 do
  ans[k] := diff(pm[k], c);
  end do
```

$$p1 := q \to q^{-\frac{1}{\varepsilon}}$$

$$p2 := q \to \alpha - \beta\, q^{\delta}$$

$$p3 := q \to \alpha - \beta \ln(q)$$

$$p_1 := q_1^{\left(-\frac{1}{\varepsilon}\right)}$$

$$p_2 := \alpha - \beta\, q_2^{\delta}$$

$$p_3 := \alpha - \beta \ln(q_3)$$

$$\pi_1 := \left(q_1^{\left(-\frac{1}{\varepsilon}\right)} - c\right) q_1$$

$$\pi_2 := \left(\alpha - \beta\, q_2^{\delta} - c\right) q_2$$

$$\pi_3 := \left(\alpha - \beta \ln(q_3) - c\right) q_3$$

$$foc_1 := -\frac{q_1^{\left(-\frac{1}{\varepsilon}\right)}}{\varepsilon} + q_1^{\left(-\frac{1}{\varepsilon}\right)} - c$$

$$qm_1 := e^{-\ln\left(\frac{c\,\varepsilon}{-1+\varepsilon}\right)\varepsilon}$$

$$qqm_1 := \left(\frac{c\,\varepsilon}{-1+\varepsilon}\right)^{-\varepsilon}$$

$$foc_2 := -\beta\, q_2^{\delta}\,\delta + \alpha - \beta\, q_2^{\delta} - c$$

$$qm_2 := e^{\frac{\ln\left(\frac{\alpha-c}{\beta(\delta+1)}\right)}{\delta}}$$

$$qqm_2 := \left(\frac{\alpha-c}{\beta\,(\delta+1)}\right)^{\frac{1}{\delta}}$$

$$foc_3 := -\beta + \alpha - \beta\ln(q_3) - c$$

$$qm_3 := e^{\frac{-\beta+\alpha-c}{\beta}}$$

$$qqm_3 := e^{\frac{-\beta+\alpha-c}{\beta}}$$

$$pm_1 := \left(\left(\frac{c\,\varepsilon}{-1+\varepsilon}\right)^{-\varepsilon}\right)^{-\frac{1}{\varepsilon}}$$

$$pm_2 := \alpha - \beta\left(\left(\frac{\alpha-c}{\beta\,(\delta+1)}\right)^{\frac{1}{\delta}}\right)^{\delta}$$

$$pm_3 := \alpha - \beta\ln\left(e^{\frac{-\beta+\alpha-c}{\beta}}\right)$$

$$ans_1 := \frac{\left(\left(\frac{c\,\varepsilon}{-1+\varepsilon}\right)^{-\varepsilon}\right)^{-\frac{1}{\varepsilon}}}{c}$$

$$ans_2 := \frac{\beta\left(\left(\frac{\alpha-c}{\beta\,(\delta+1)}\right)^{\frac{1}{\delta}}\right)^{\delta}}{\alpha-c}$$

$$ans_3 := 1$$

(1)