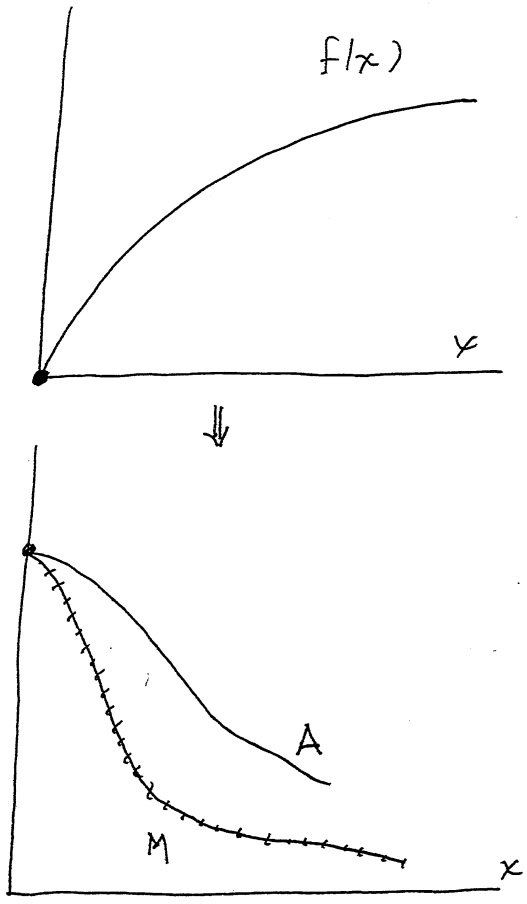
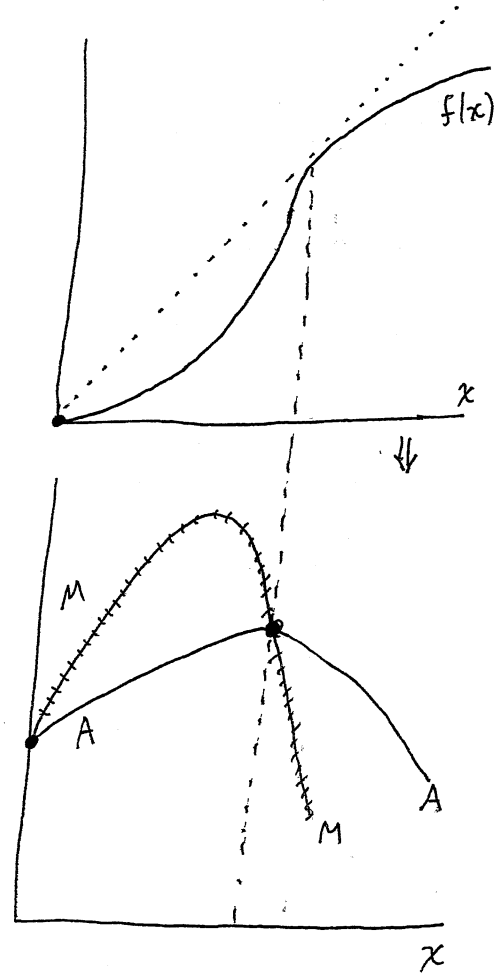
Exercises for finding Averages and Marginals

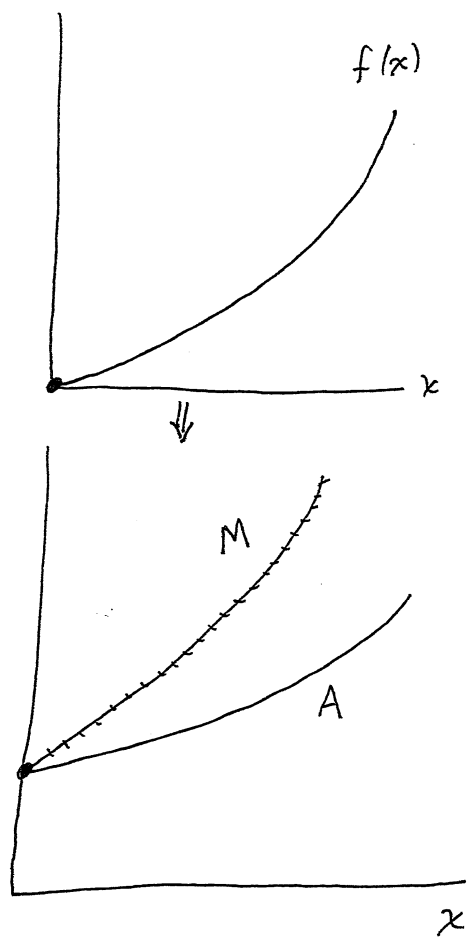
①



②



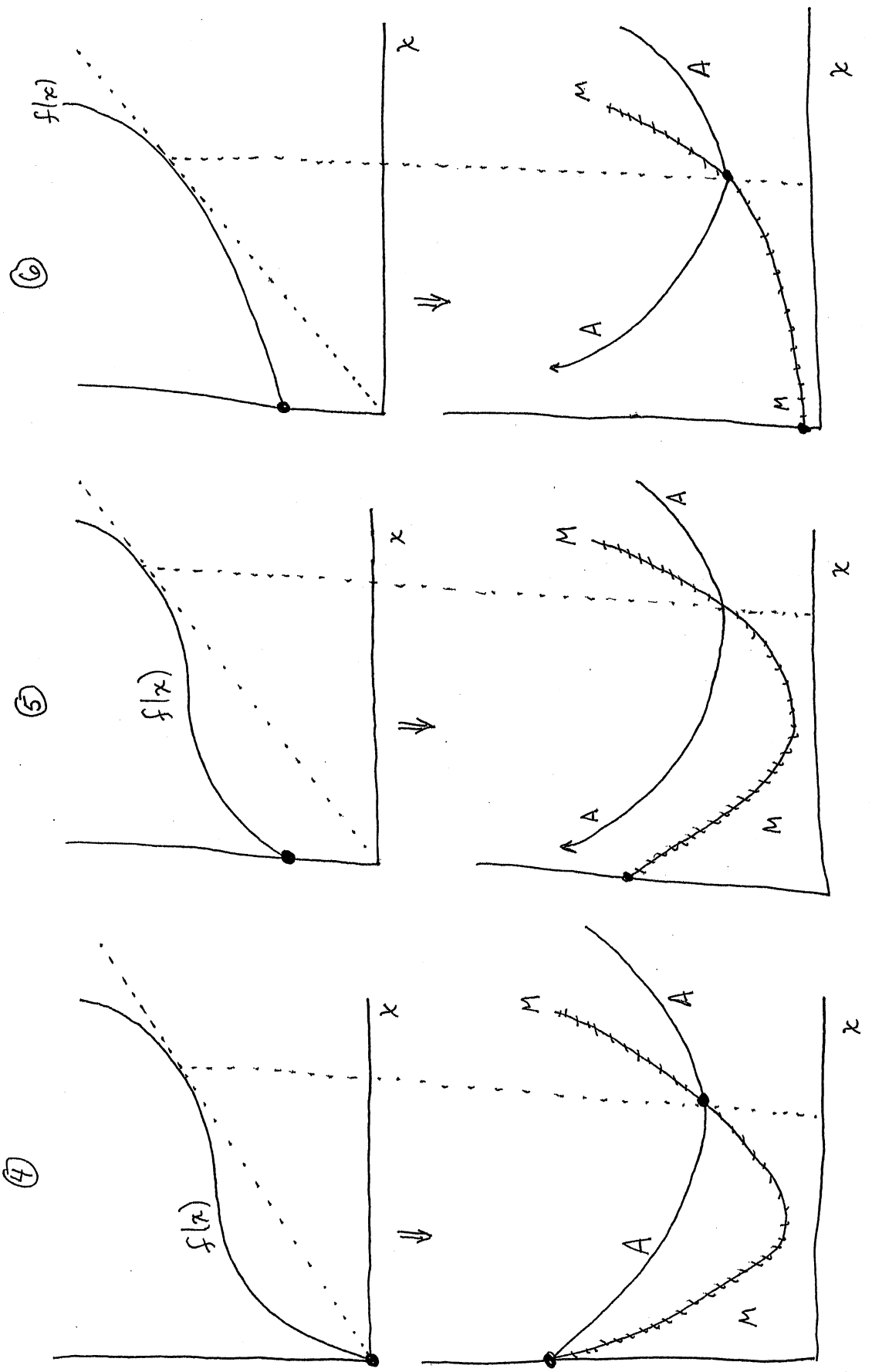
③



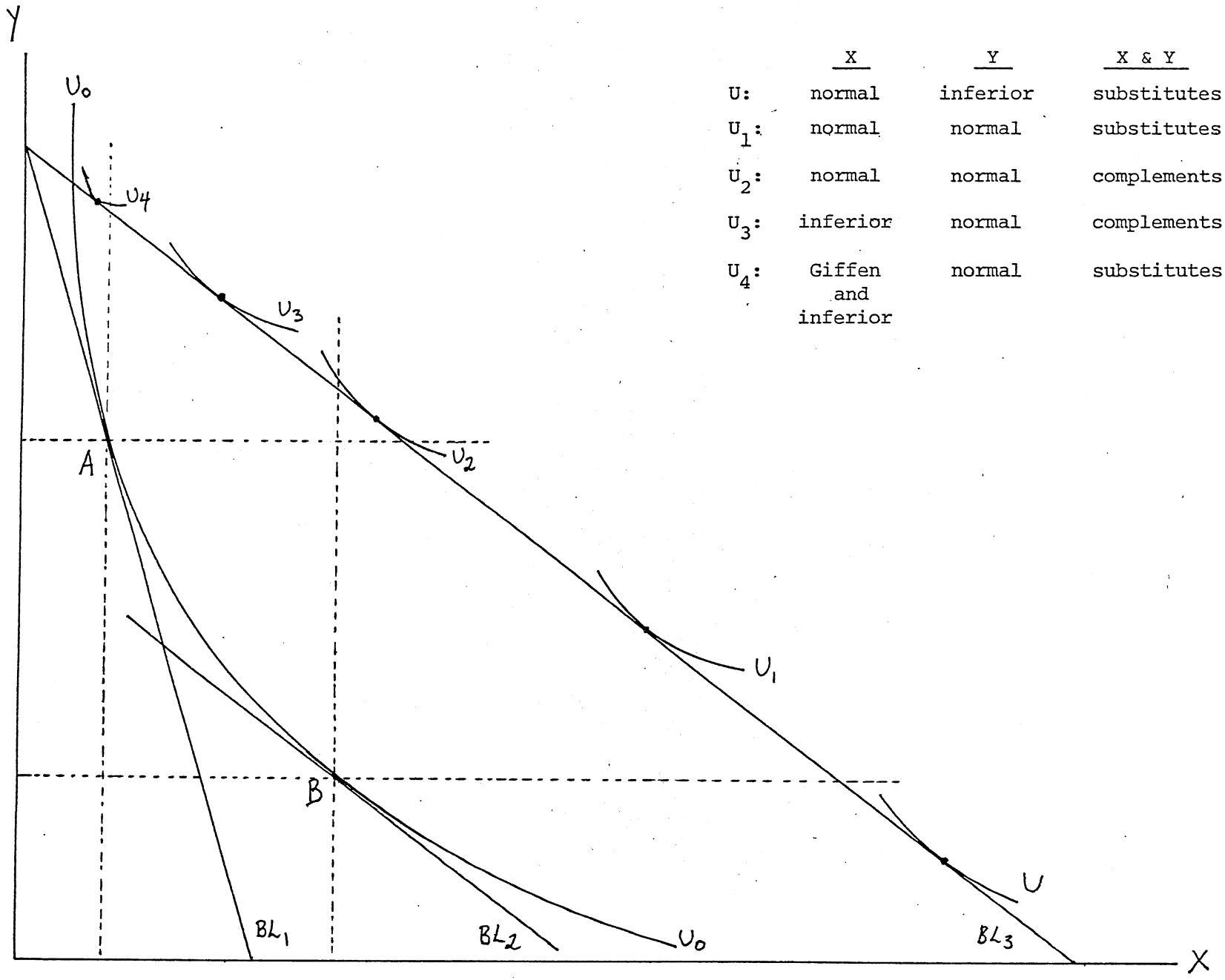
A = average

M = marginal

Exercises for finding Averages and Marginals (continued)



3

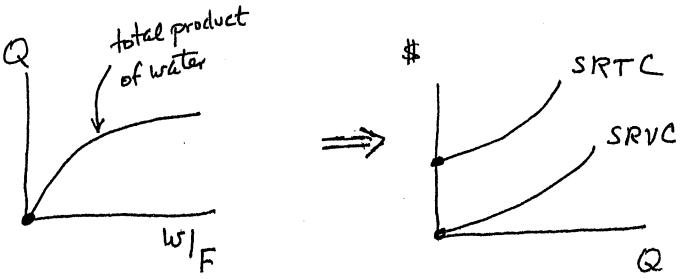


	X	Y	X & Y
U:	normal	inferior	substitutes
U_1:	normal	normal	substitutes
U_2:	normal	normal	complements
U_3:	inferior	normal	complements
U_4:	Giffen and inferior	normal	substitutes

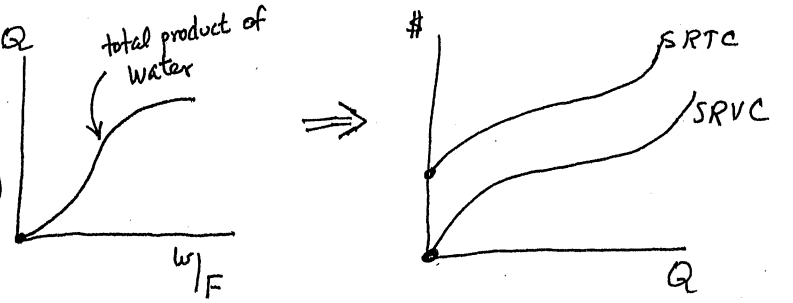
Overview of Cost Curves

Short Run:

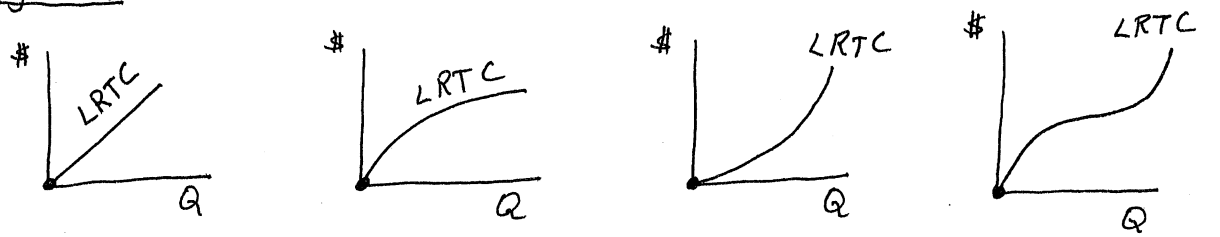
Type 1
("Diminishing Returns begins immediately")



Type 2
("Diminishing Returns does not begin immediately")



Long Run



Type A (CRS)

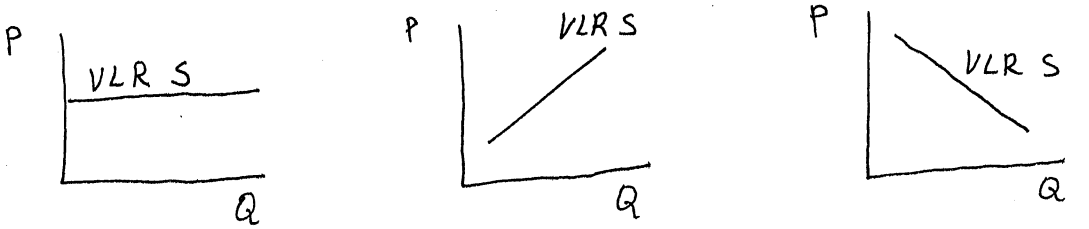
Type B (↑RS)

Type C (↓RS)

Type D (↑, then ↓ RS)

Very Long Run

If the LRTC is Type D then:



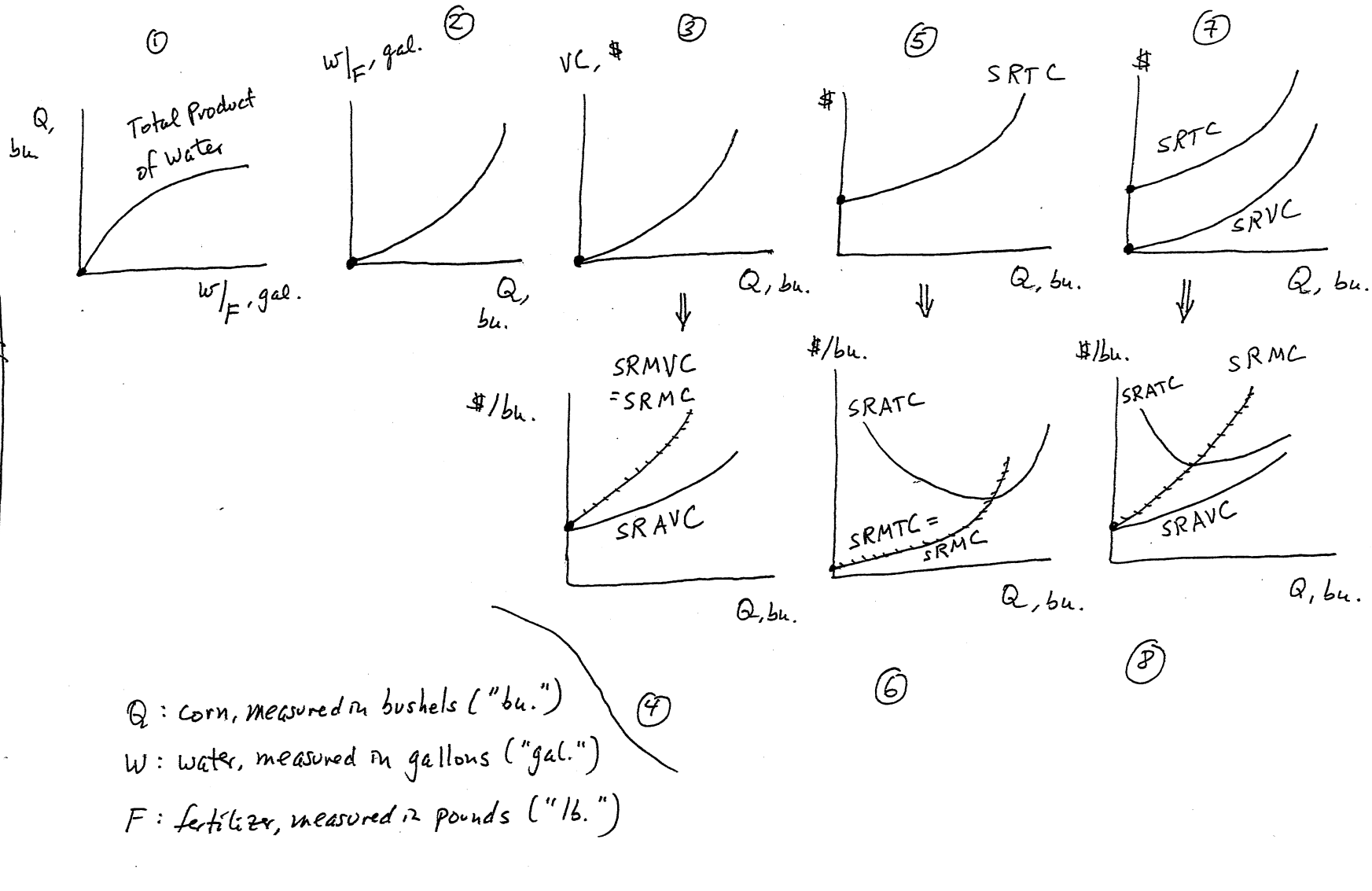
Type α (Constant-Cost Industry)

Type β (Increasing-Cost Industry)

Type γ. (Decreasing-Cost Industry)

Ln

Derivation of Short-Run Cost Curves : Type 1

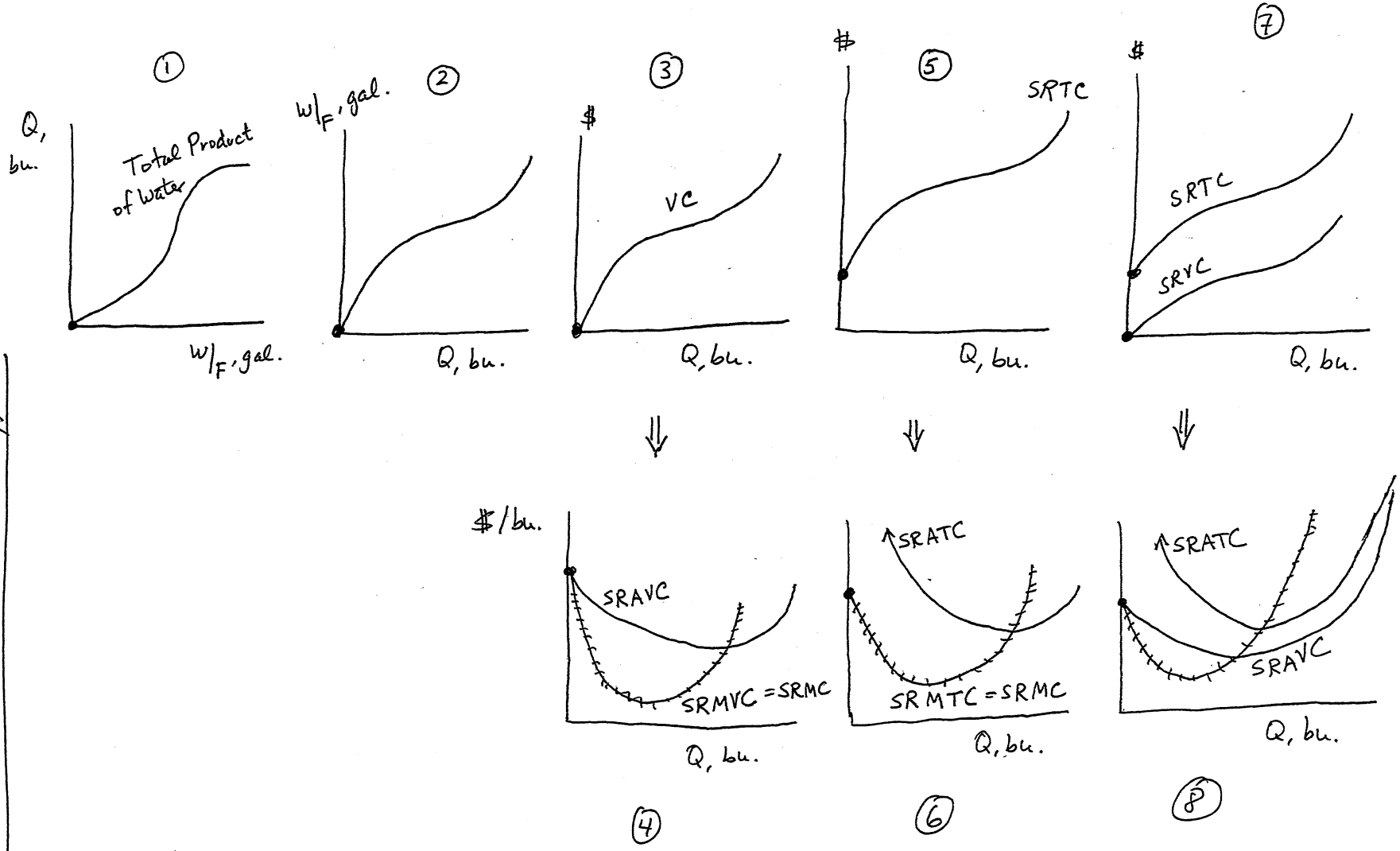


Q : corn, measured in bushels ("bu.")

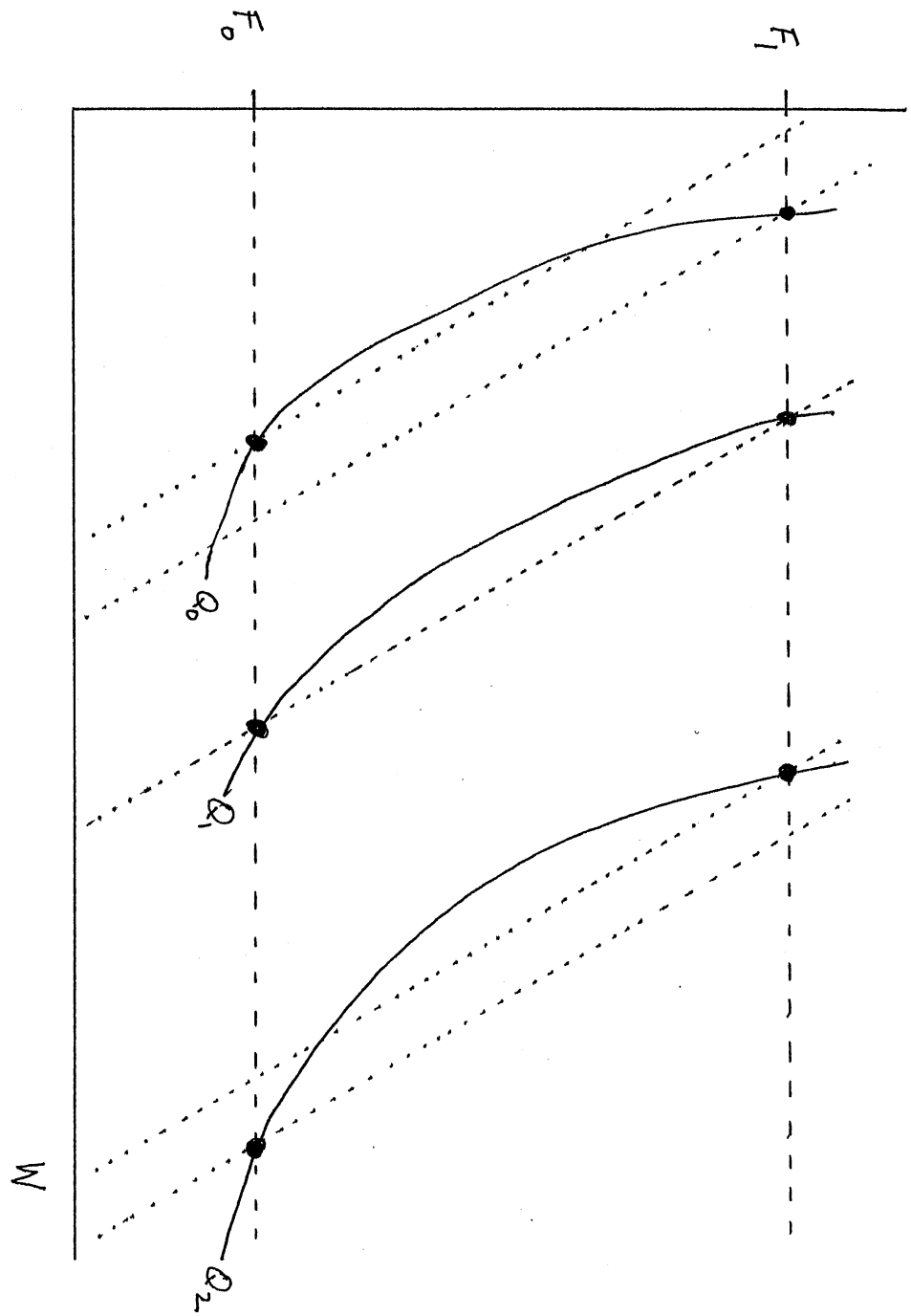
W : water, measured in gallons ("gal.")

F : fertilizer, measured in pounds ("lb.")

Derivation of Short-Run Cost Curves: Type 2



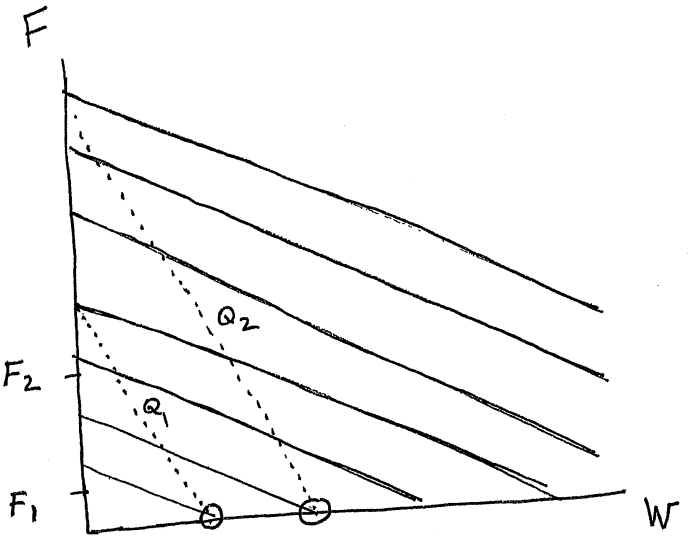
How Short-Run Total Cost Curves Could Cross



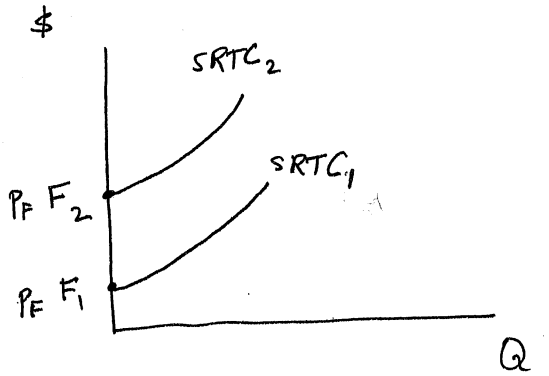
Notes: Dotted lines (.....) are isocost lines.

Also: SRTC curves are not shown on this graph, but could be derived from this graph.

SRTC curves need not cross

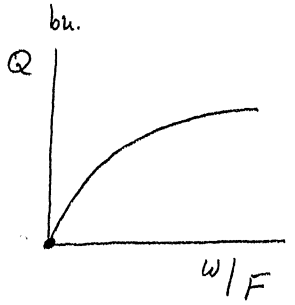


——: isocost lines
..... : isoquants (linear)
o : optimal (LR) point (no F used)

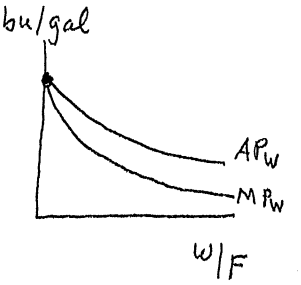


$F=0$ is always optimal.

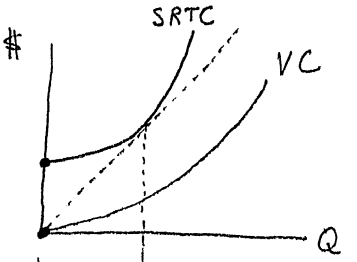
The next best thing is $F=F_1$, never $F=F_2$. So SRTC with $F=F_1$ always lies below SRTC with $F=F_2$.



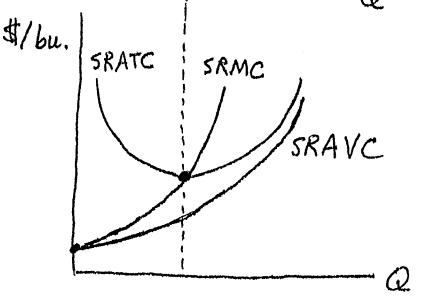
(1)



(2)

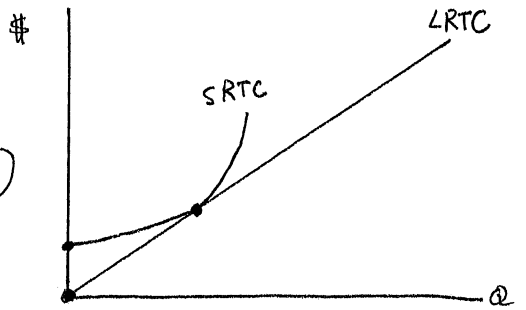


(3)



(4)

A



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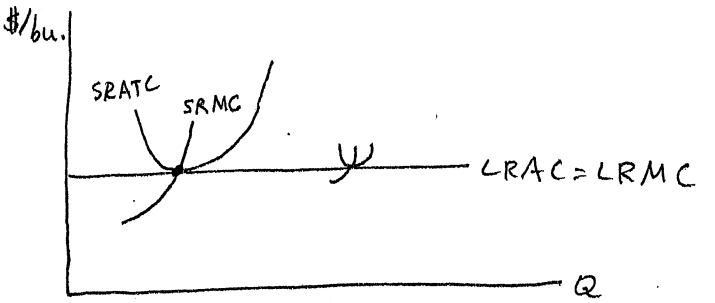
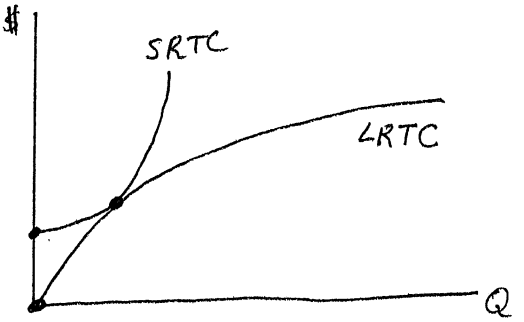


(6)

B



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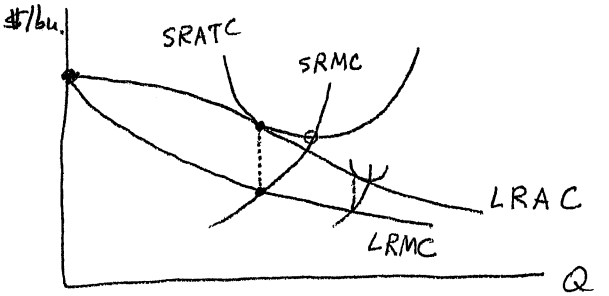
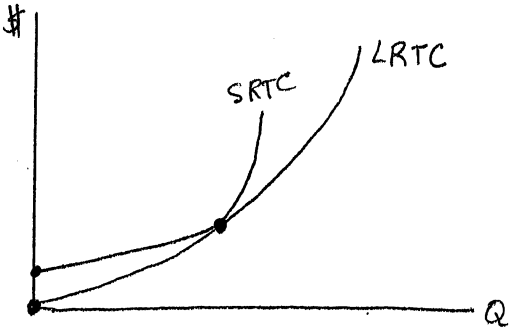


(8)

C



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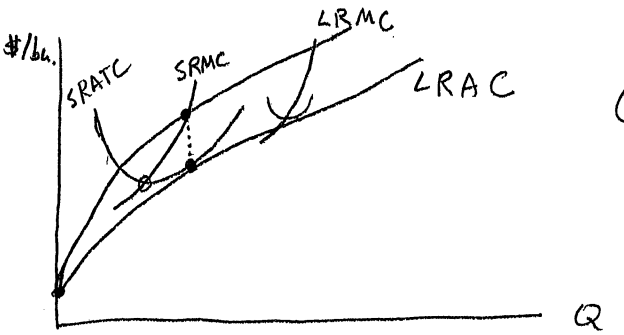
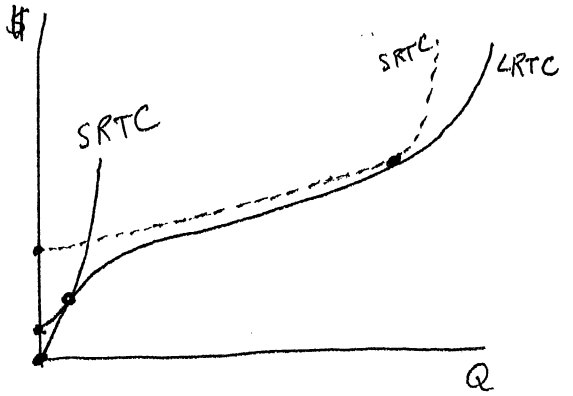


(10)

D



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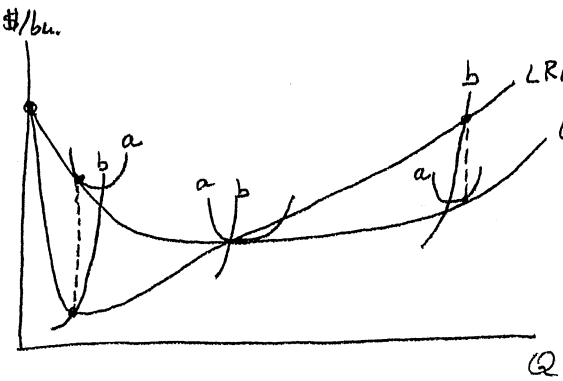
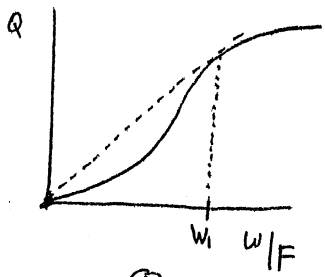
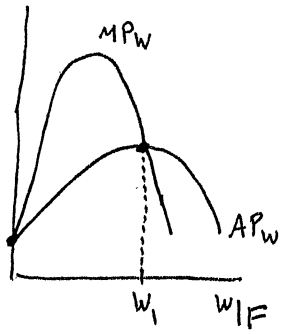


(12)

a : SRATC
b : SRMC



(1)



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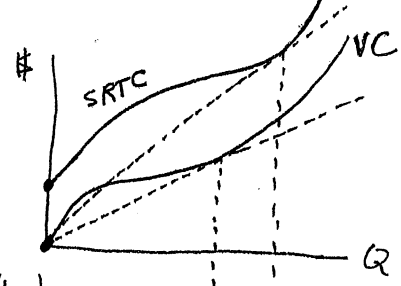

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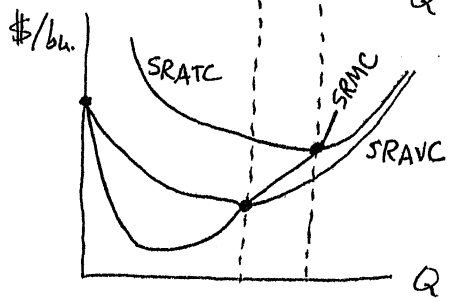
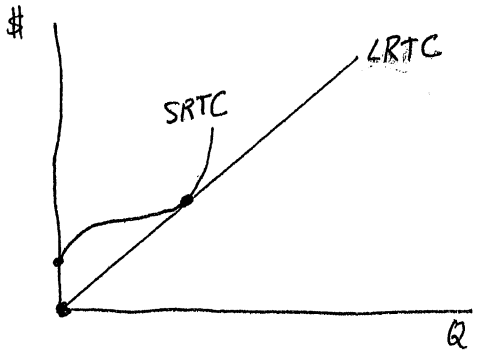


(4)

A



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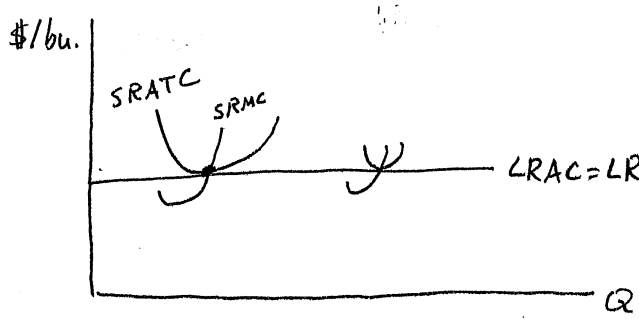
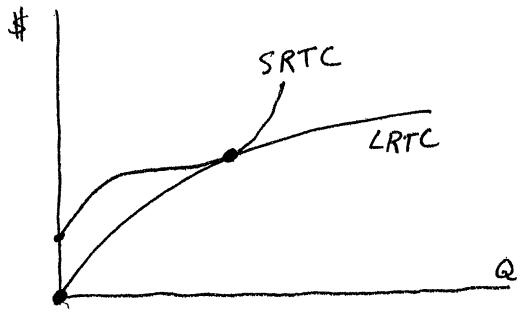


(6)

B



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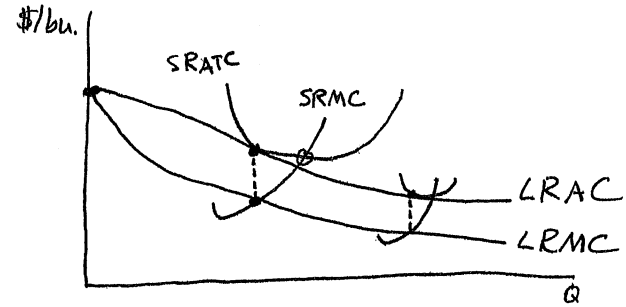

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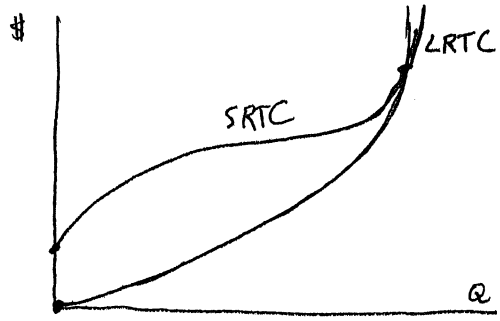
C



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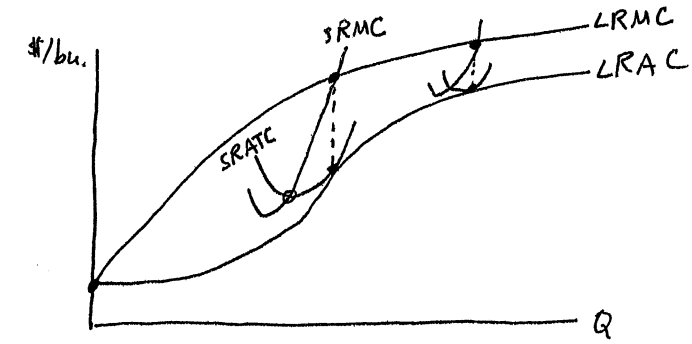
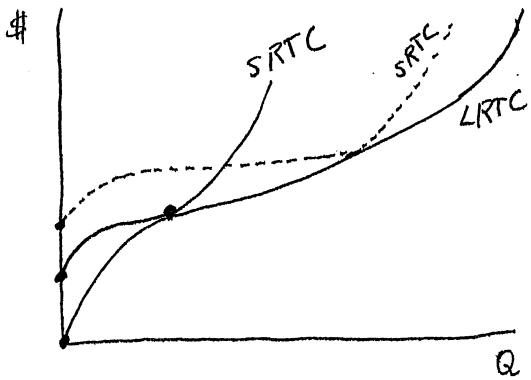


(10)

D



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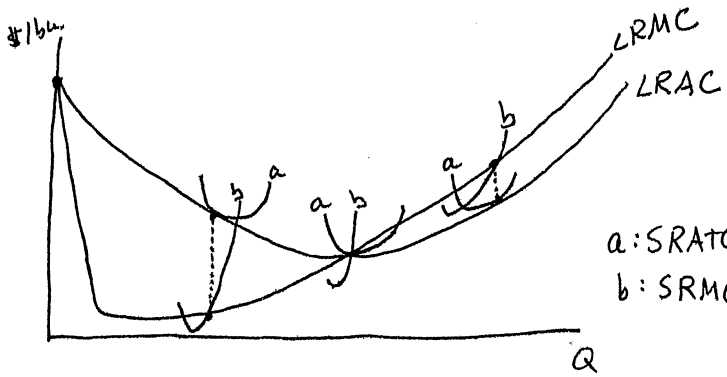
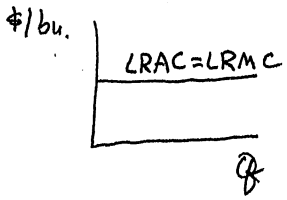


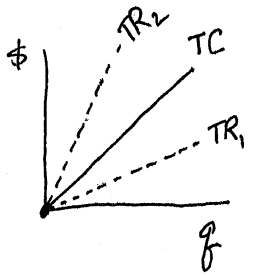
(12)

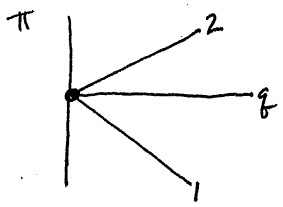
a : SRATC
b : SRMC

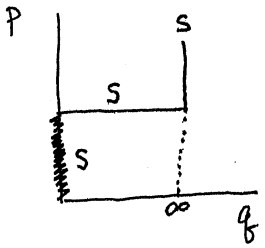
Long-Run Competitive Pricing

A. CRS

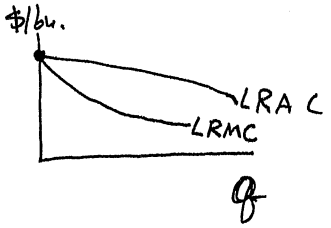


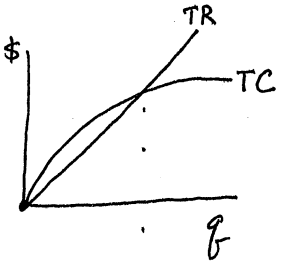


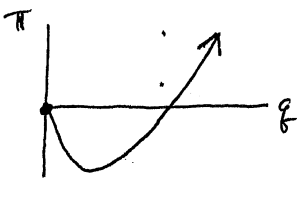


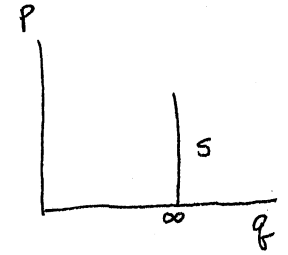


B. ↑ RS

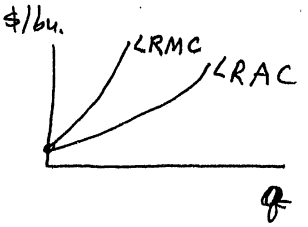


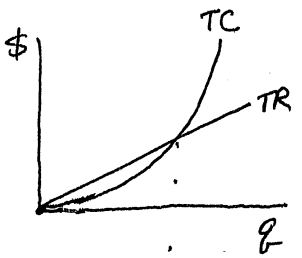


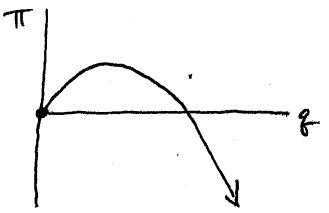


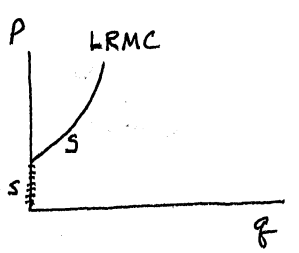


C. ↓ RS

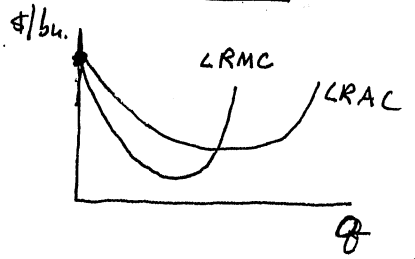


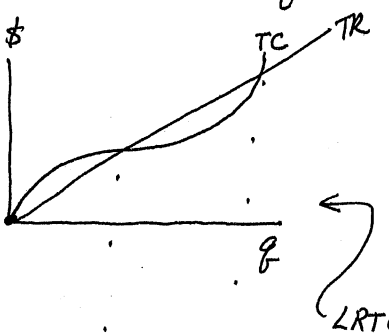


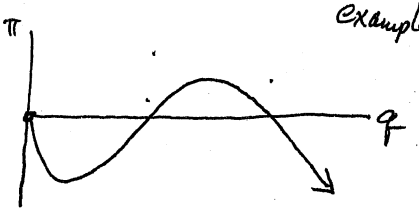


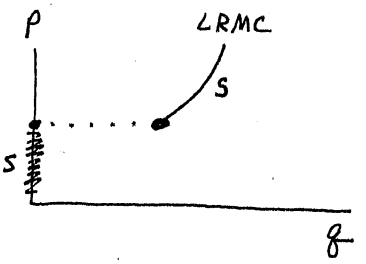


D. ↑, ↓ RS



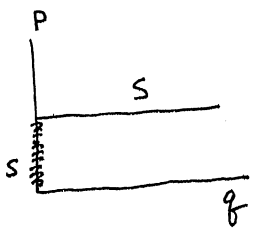






Very Long Run Supply Curve

1 FIRM ↳



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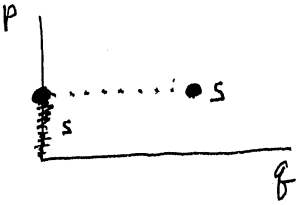
none

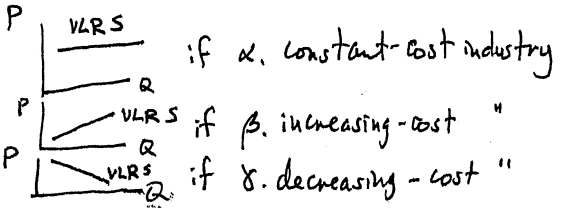


INDUSTRY ↳

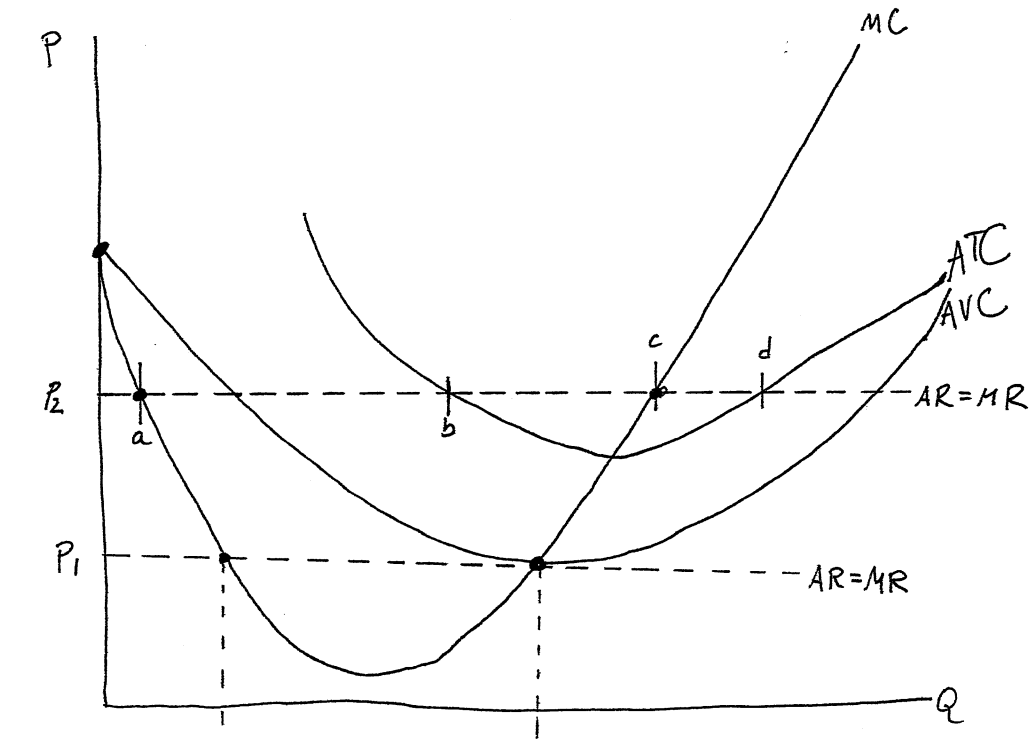
VLR S is same as the lowest cost firm's S curve

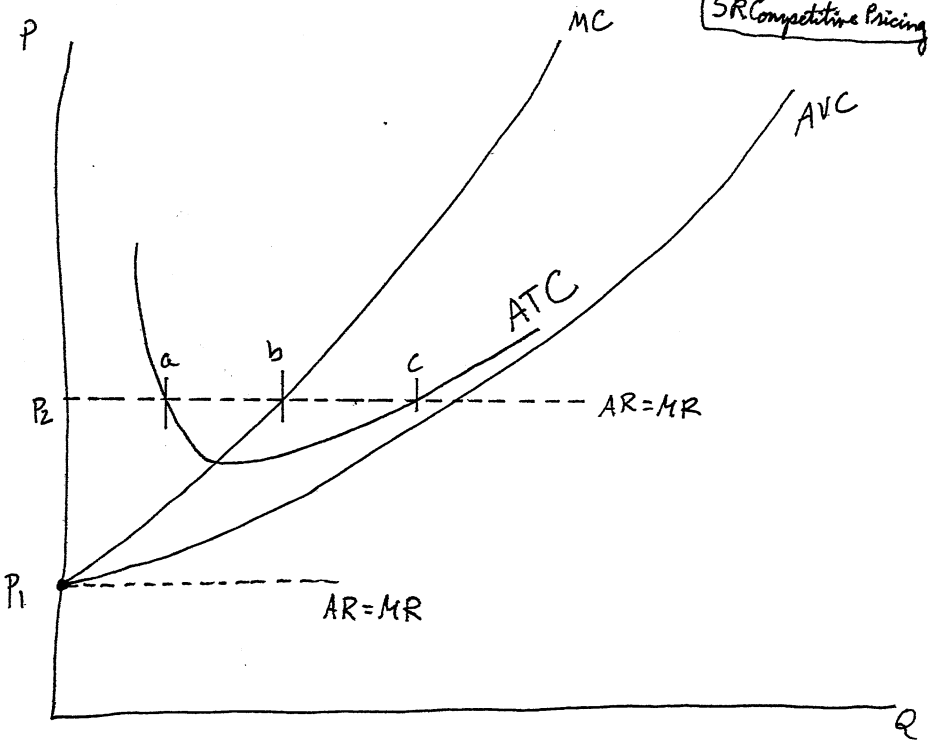
none

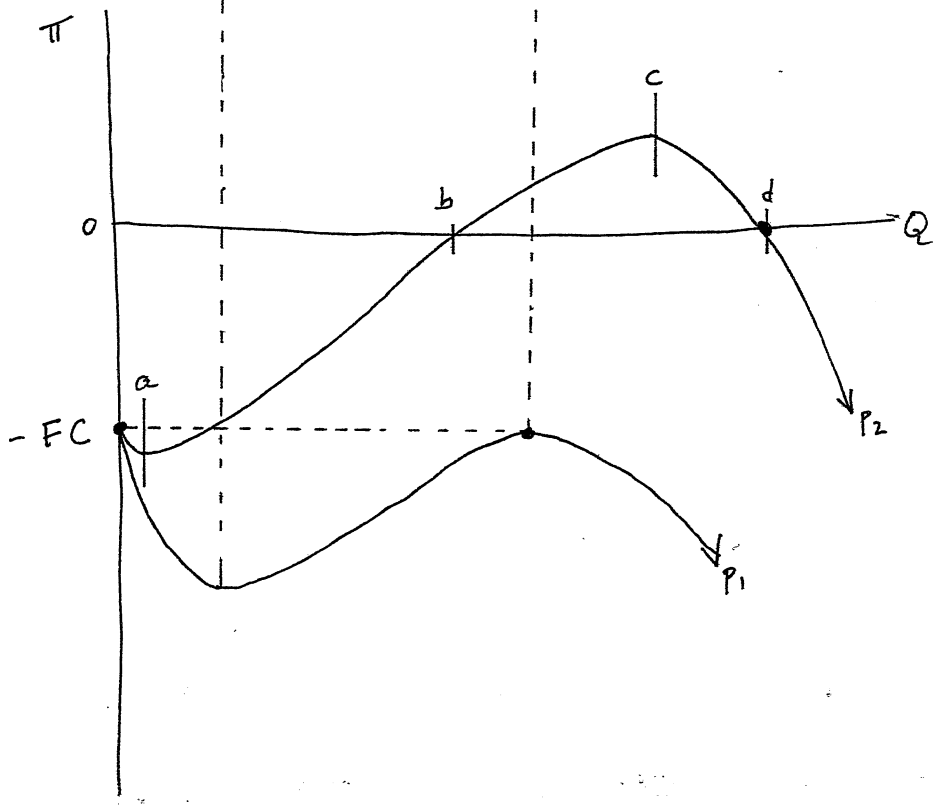
none

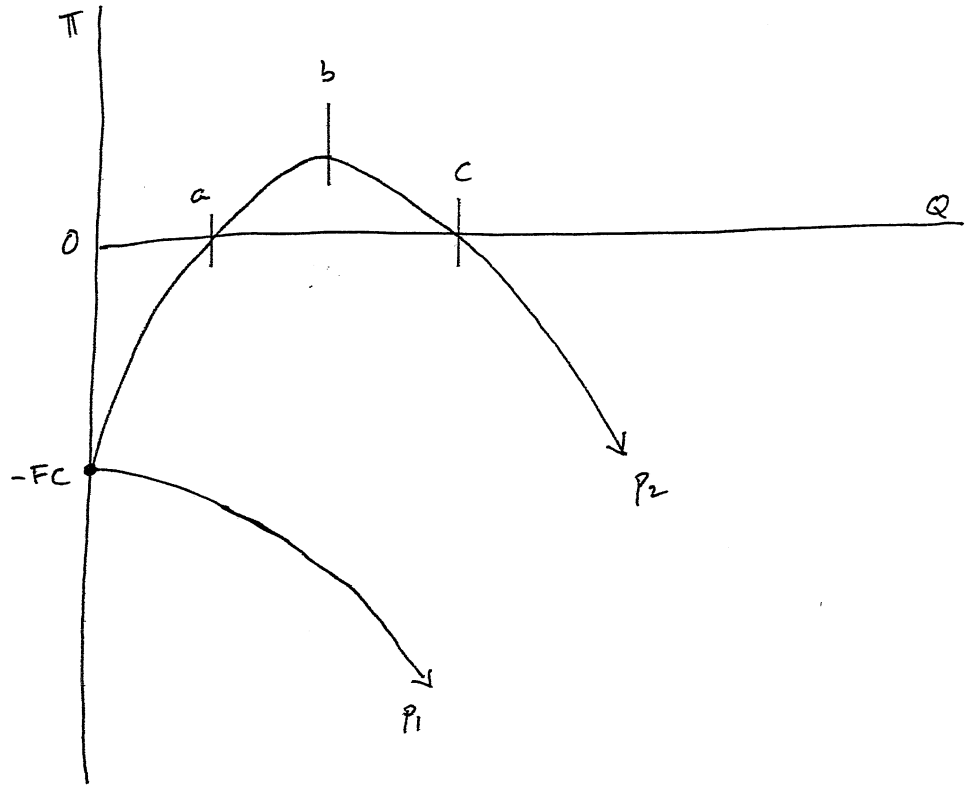


SR Competitive Pricing

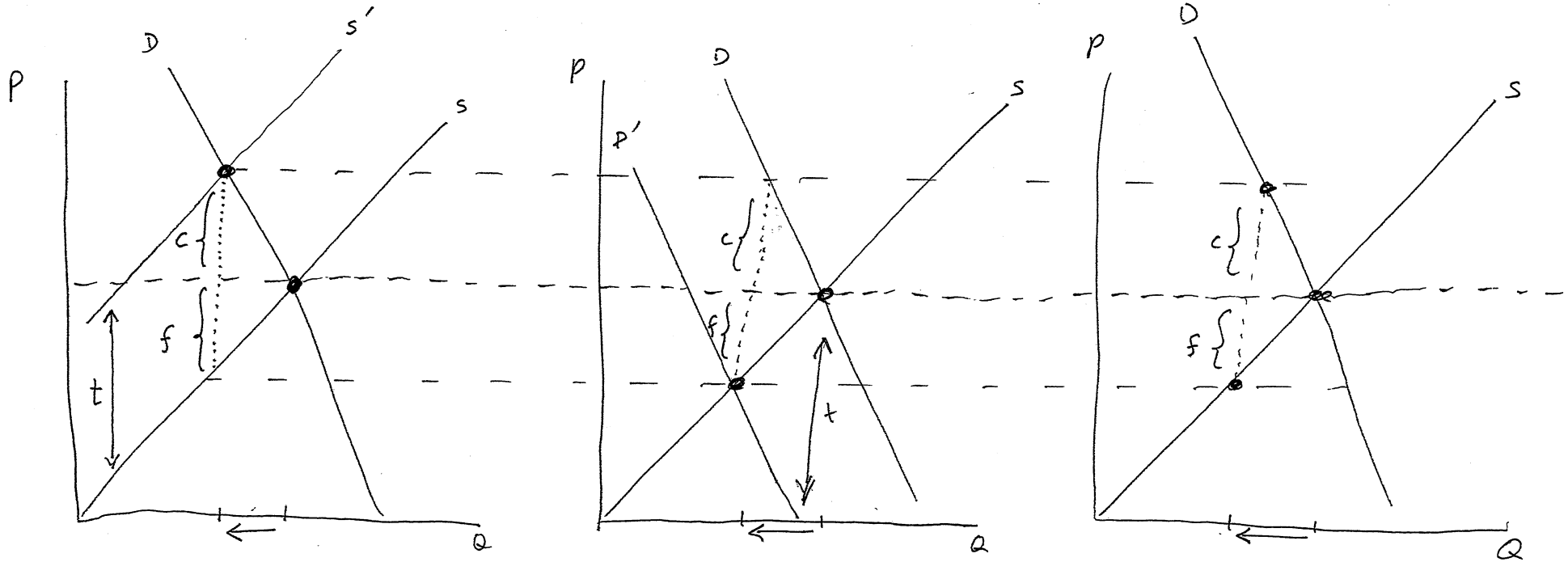








Tax Incidence



Who sends the checks to the government:

Firm

Consumers

unspecified

Subsidy Incidence: