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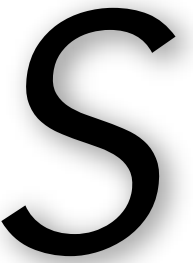

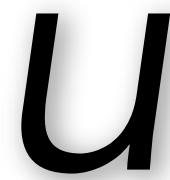

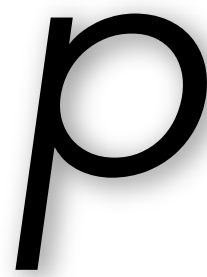

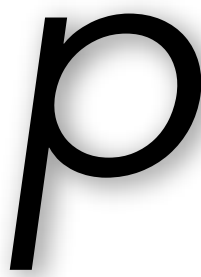

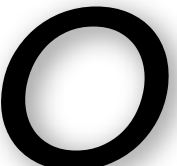

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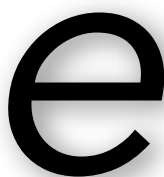

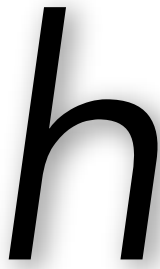

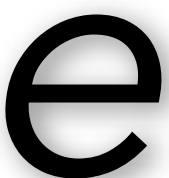

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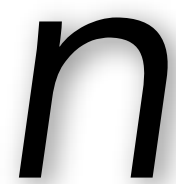

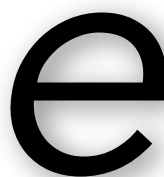

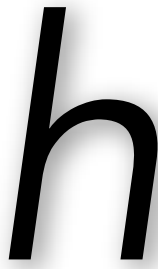

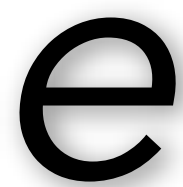

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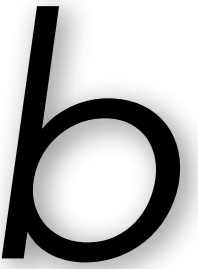

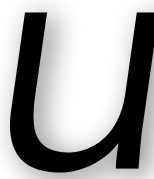

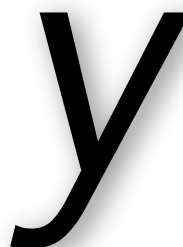

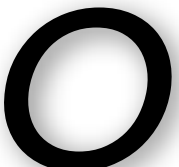

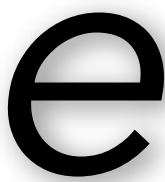

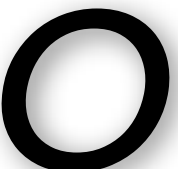

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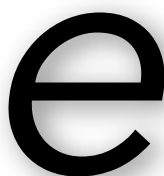

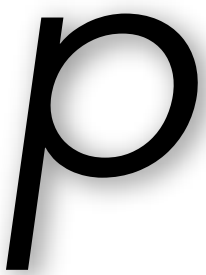

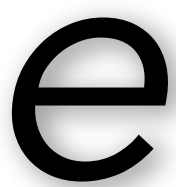

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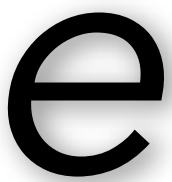

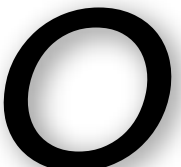

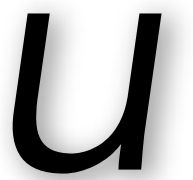

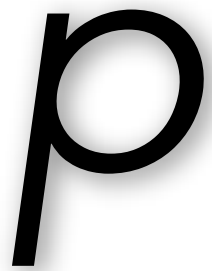

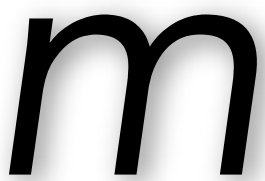

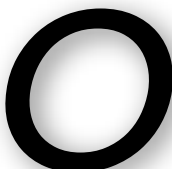

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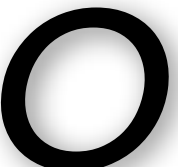

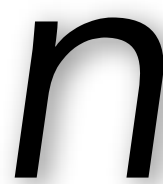

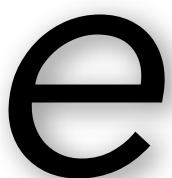

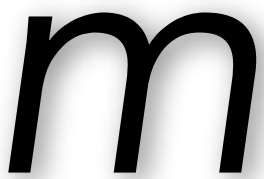

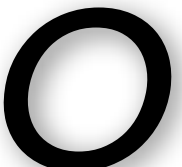

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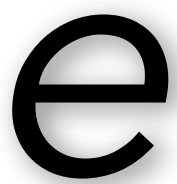

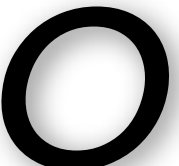

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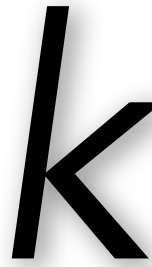

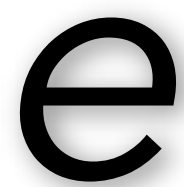

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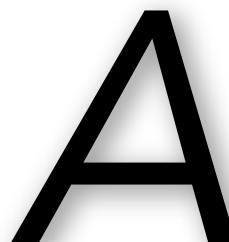
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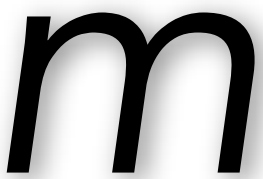

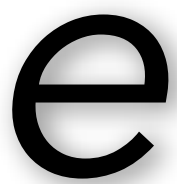

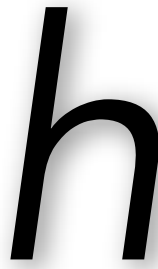

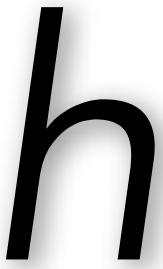

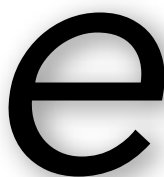

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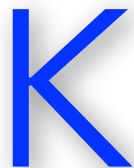

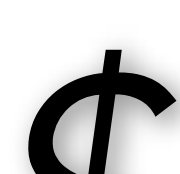

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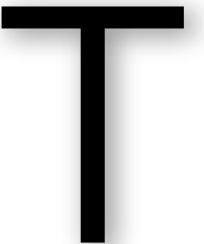

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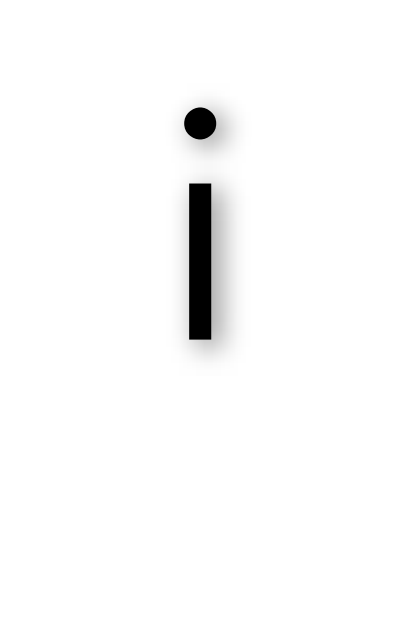

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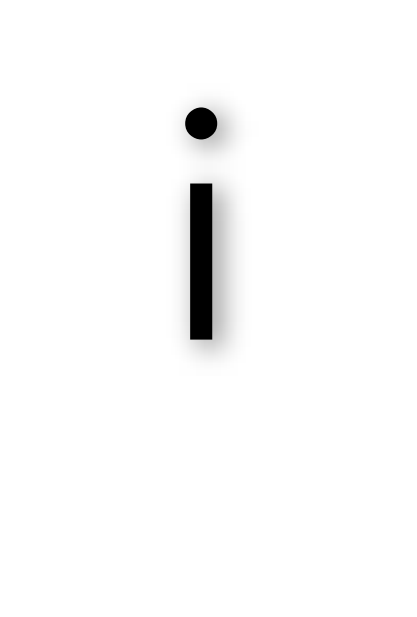

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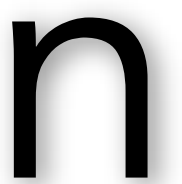

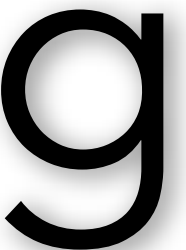

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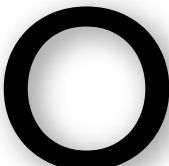

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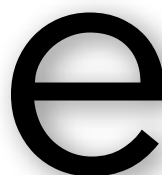

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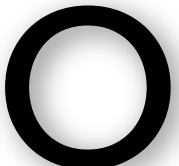

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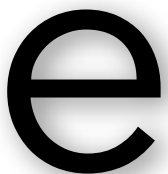

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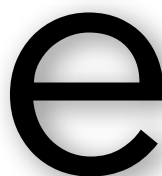

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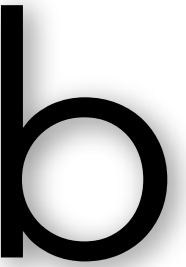

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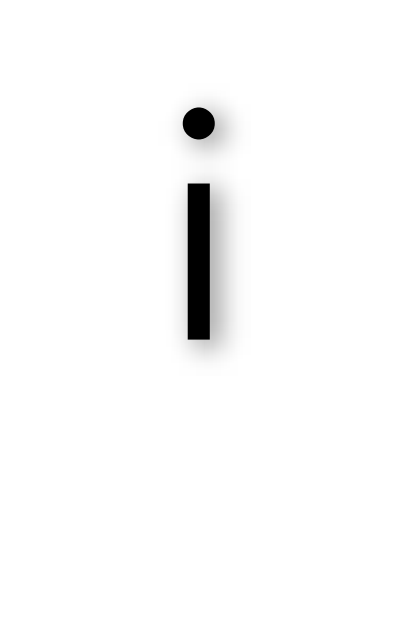

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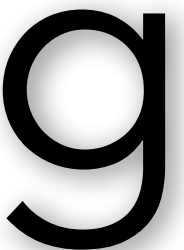

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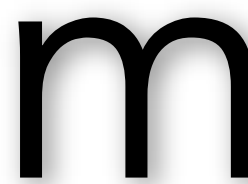

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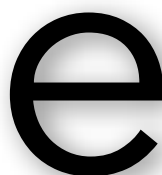

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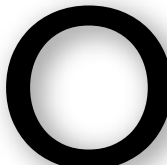

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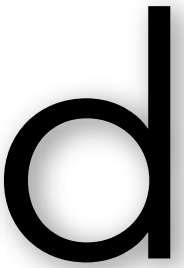

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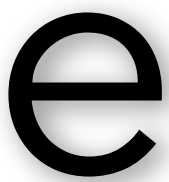

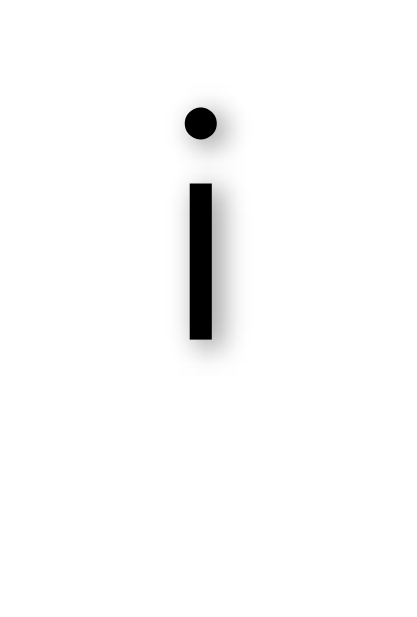

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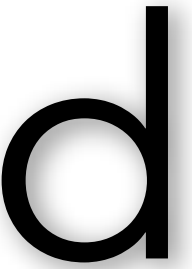
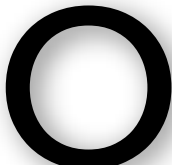
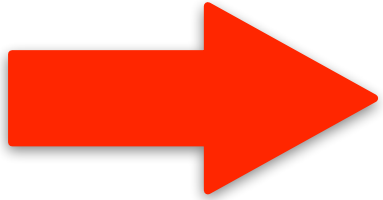




Suppose that:

$MRP_L = 100$

$$\text{Revenue per dollar spent on Labor} = \frac{\qquad\qquad}{P_L = 50}$$

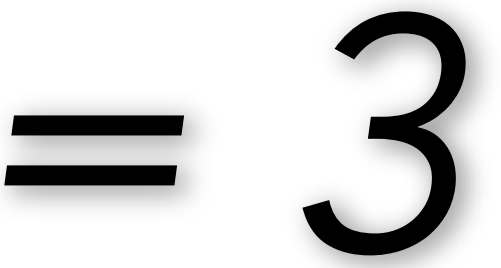


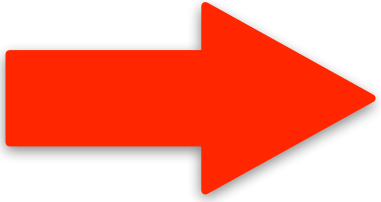
The firm gets $2 in revenue *for each dollar spent on Labor*

Suppose that :

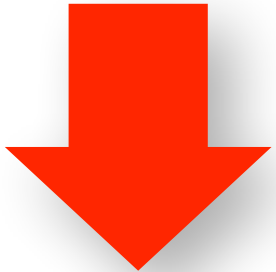
$MRP_K = 150$

$$\text{Revenue per dollar spent on Capital} = \frac{}{P_K = 50}$$

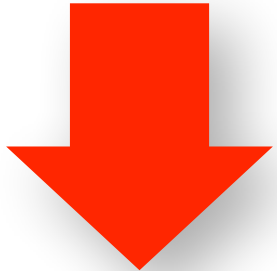




The firm gets $3 in revenue *for each dollar spent on Capital*

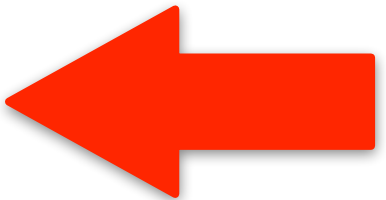


The firm gets more revenue for each dollar spent on Capital



The firm should buy one more piece of equipment

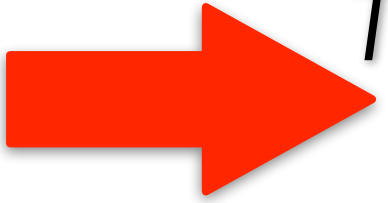
For this new piece of capital, the MP_K will be lower and thus, the MRP_K will also be lower…say it is now $MRP_K = 90$



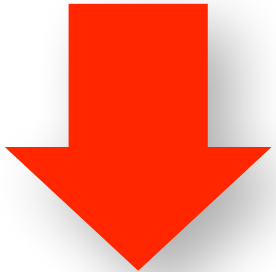
New

$MRP_K = 90$

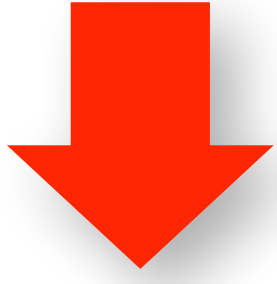
$= 1.8$



The firm gets $1.8 in revenue *for each dollar spent on Capital*

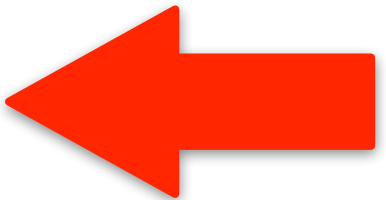


The firm gets more revenue for each dollar spent on Labor



The firm should hire one more worker

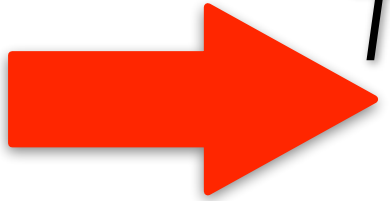
For this new worker, the MP_L will be lower and thus, the MRP_L will also be lower…say it is now $MRP_L = 90$



New:

$MRP_L = 90$

$= 1.8$



The firm gets $1.8 in revenue *for each dollar spent on Labor*

The firm gets the same revenue for each dollar spent either on Labor or on Capital. Does this mean the firm now has the optimal mix of K and L?

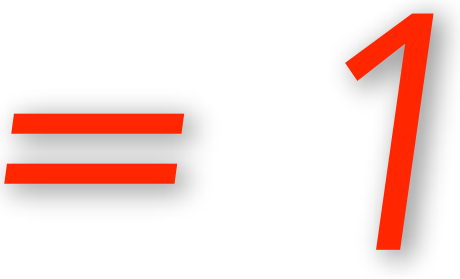
As the firm hires more labor and capital, the MRP drops. The MRP_K will drop until it will be equal to P_K and The MRP_L will drop until it will be equal to P_L

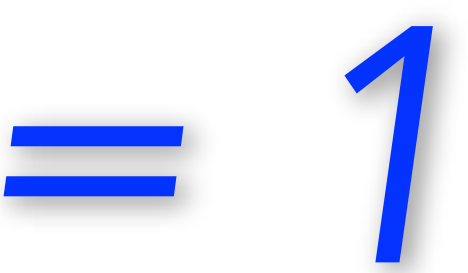
Eventually:

$MRP_L = 50$

Eventually:

$MRP_K = 50$





The firm gets $1 in revenue *for each dollar spent either on Capital or on Labor.* $MRP_K = P_K$ *and* $MRP_L = P_L$ *and* $MRP_K = MRP_L$ *the firm now has the optimum mix of Labor and Capital*

No! $MRP_K > P_K$ and $MRP_L > P_L$ The firm can make money by hiring more workers or buying more equipment

Suppose the firm can either buy one more piece of equipment or hire one more worker. Assume that the $P_L = P_K =$ \$50. That is, hiring a worker costs the same as buying a machine. What should the firm do?

Example: *Suppose the firm can either buy one more piece of equipment or hire one more worker. Assume that the* $P_L = P_K = \$50$. That is, hiring a worker costs the same as buying a machine. What should the firm do?

Revenue per dollar spent on Labor $= \dfrac{MRP_L = 50}{P_L = 50} = 1$ Eventually:

Revenue per dollar spent on Capital $= \dfrac{MRP_K = 50}{P_K = 50} = 1$ Eventually:

No! $MRP_K > P_K$ *and* $MRP_L > P_L$ *The firm can make money by hiring more workers or buying more equipment*

The firm gets \$1 *in revenue for each dollar spent either on Capital or on Labor.* $MRP_K = P_K$ *and* $MRP_L = P_L$ *and* $MRP_K = MRP_L$ *the firm now has the optimum mix of Labor and Capital*

As the firm hires more labor and capital, the MRP drops. The MRP_K *will drop until it will be equal to* P_K *and The* MRP_L *will drop until it will be equal to* P_L