

How Resource Prices are Determined

Derived demand:
demand exists for inputs because of demand for the output
What are the various inputs?

- *labor (wages)
- *land (rent)
- *capital (interest)

Most commonly used on AP Exam!!

How Resource Prices are Determined

Units of labor	Total Prod.	Marginal Prod. (MPP)	Price	Total Revenue	MRP
0	0	20,000	\$3	\$0	60,000
1	20,000	10,000	\$3	60,000	30,000
2	30,000	5,000	\$3	90,000	15,000
3	35,000	3,000	\$3	105,000	9,000
4	38,000	1,000	\$3	114,000	3,000
5	39,000		\$3	117,000	

Marginal Product:
the extra output added by one extra unit of the input (ceteris paribus)

Marginal Revenue Product:
the additional revenue produced by an additional unit of input ($MRP = P \times MP$)

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How many workers should this perfectly competitive firm hire?

It depends on the price of labor (wages). Let's say wage is set at \$20,000/year.

Marginal Resource Cost
(wage rate)

Use another profit-maximization rule
 $MRP = MRC$

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Hire how many? @ \$14,955/yr.?
 many? @ \$43,000/yr.?
 @ \$8,500/yr.?

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Units of labor	Total Prod.	Marginal Prod. (MPP)	Price	Total Revenue	MRP
0	0	20,000	\$3	\$0	56,000
1	20,000	10,000	\$2.80	56,000	25,000
2	30,000	5,000	\$2.70	81,000	10,000
3	35,000	3,000	\$2.60	91,000	4,000
4	38,000	1,000	\$2.50	95,000	-1,400
5	39,000		\$2.40	93,600	

Hire how many? @ \$14,955/yr.?
 many? @ \$43,000/yr.?
 @ \$8,500/yr.?
