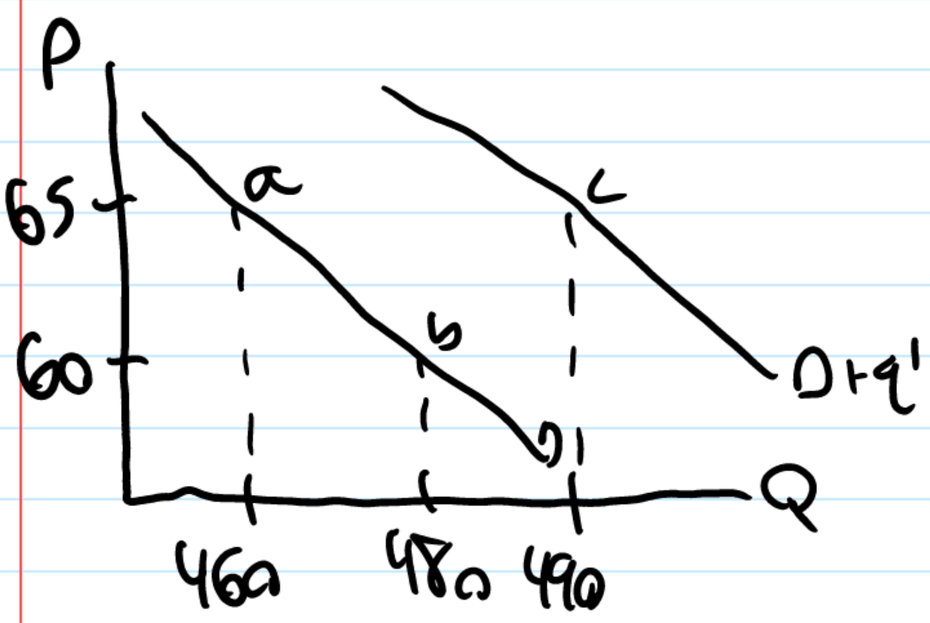
HW 6 Opportunity Cost of Inputs 1

Sunday, October 4, 2020 5:04 PM

Passed solution review

Suppose a project needs to hire 10 electricians. At the initial wage of 60K/year (including benefits) 480 are currently employed in the local area and 20 are estimated to be unemployed. The MEBT is 0.2. Estimate the opportunity cost of hiring the workers. Explain, and defend any assumptions you make.



Assuming new wage is 65k as it does in problem 2

$q' = 10$

$abc = \frac{1}{2}(65-60)(.49-.46) = 75{,}000$

$SC = (490-460)\cdot 65000 - abc + METB(490-460)(65000)$
$SC = 30\cdot 65000 - 75000 + (.2\cdot 30\cdot 65000)$
$SC = 2{,}265{,}000$

Since there is low unemployment, worker time is valued at market rate. Since the number hired is a small amount compared to total workforce, hiring does not affect the wage. Thus, $SC = 1.02\cdot 60\cdot 10 = 720$