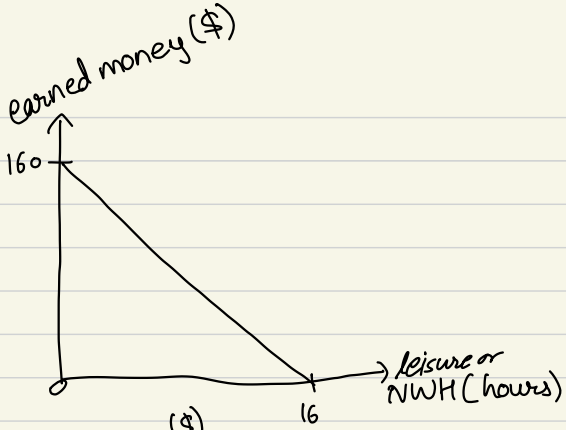
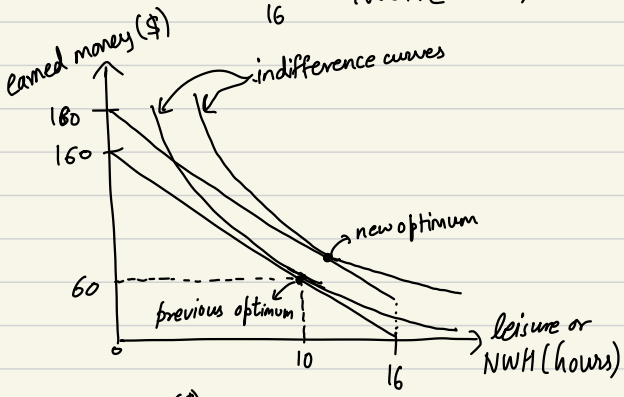
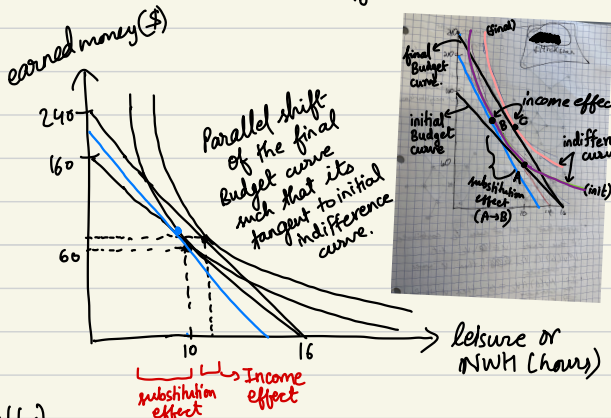
1. (a)


earned money ($)
160
16
leisure or NWH (hours)

(b)

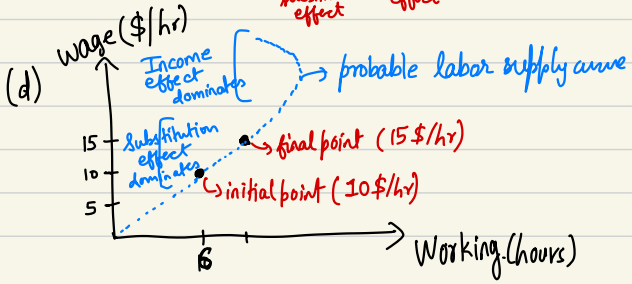

earned money ($)
indifference curves
180
160
new optimum
60
previous optimum
10
16
leisure or NWH (hours)

(c)


earned money ($)
240
160
60
Parallel shift of the final Budget curve such that its tangent to initial indifference curve.
10
16
substitution effect
Income effect
leisure or NWH (hours)


(final)
final Budget curve
income effect (B→C)
initial Budget curve
indifference curves
(init)
substitution effect (A→B)

(d)


wage ($/hr)
Income effect dominates
probable labor supply curve
15
10
5
substitution effect dominates
final point (15 $/hr)
initial point (10 $/hr)
16
Working (hours)

2. (a) fixed costs: $20
- for laborer 1, company will make $6 from 6 goods and will pay $4 to worker, so it's feasible.
- for laborer 2, company will make $8 from 8 extra goods & will pay $4 to worker, so it's feasible

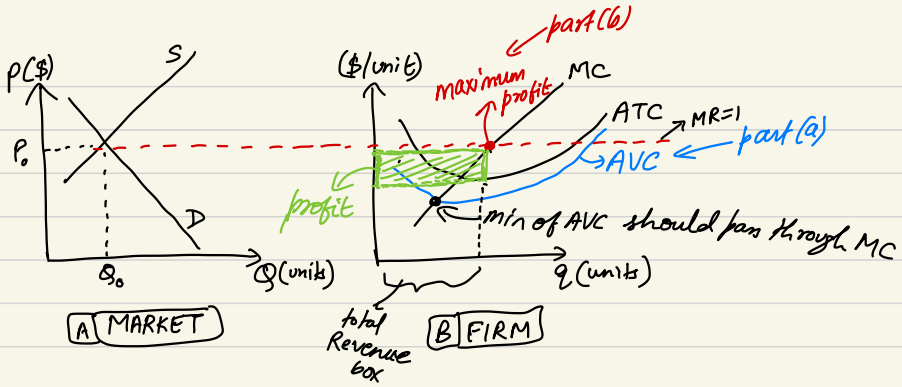
Similarly, till laborer 6.
The company will not hire laborer 7 because the MC > MB.
Optimum number of laborers hired = 6.

(b) Benefit - Cost = (market revenue) $42 - 6(4) - 20 = \boxed{-2}$ ($ ← no. of workers, wage, → fixed costs)

⇒ loss of $2, so firm will not produce in long-run.

(c) The overall welfare will decrease as the cartel of firms will strongly look forward to maximising their profits by ~~increasing the number of quantities produced, hiring workers at low wage and~~ raising the market prices, but the quantity will decrease.

3.




(c) MR > MC in that region, makes the profit (+ve).

(d) This is the case of Short run profit maximization in perfect competition because MC curve cuts MR = P from below. Company decides to supply the level of output where the MR = MC.

This is not Long Run eqm because we have +ve profits.

Assumption: Perfectly Competitive market of taxicabs

4. Mayor imposed additional fixed cost of $1000 as licensing fee to operate a taxicab per day.

⊛ current situation
(short and long run equilibrium)
zero profits,
everybody
maximising profits

Short run:
fixed cost ↑
profit (-ve)

Long run: Firms will be dropping out,
fares will be rising,
equilibrium fare will rise,
quantity will go down,
profits will eventually be 0

5. Data
- Earlier Salary of Ana: $60000/year in 2021 ⊗
- Stopped renting out mt. cottage for $3500/year & used it as office
- Spent $50,000 on equipment, phone, utilities etc.
- Leased equipment for $10,000/year.
- Paid $15000 in wages to an assistant guide.
- Used $10000 from her savings acc., which paid 5% interest.
- Borrowed $40000 at 10% interest rate from a bank.
- Sold $160000 worth of wilderness tours.

(a) explicit costs = 50000 + 10000 + 15000 + 4000

= 79,000 $

(b) implicit costs = 3500 + 500 + 60000

= 64000 $

(c) accounting profit = 160,000 − 79000

= 81,000 $

(d) Economic profit = 160000 − 79000 − 64000

= 17,000 $

6. Market Price of tulips = \$25 per bunch
Maximum profit by quantity = 2000 bunches per week
ATC (Average Total Costs) of producing tulips = \$20 per bunch
MAVC (Minimum Average Variable costs) = \$12 per bunch

(a) total economic profit in short run $\Rightarrow$ $25(2000) - 20(2000) = \boxed{10000\$}$

(b) price at which growers decide to shut down $\Rightarrow$ Growers will shut down when $MC = \min(AVC) = \boxed{\$12/\text{bunch}}$

(c) What would be each grower's total profit at shut-down point $\Rightarrow$ Total Profit = $\boxed{-10{,}000\$}$

$TR = TVC$
$TC = TVC + TFC$ $\Rightarrow$ $\boxed{\text{profit} = TR - TC = -TFC}$

Rough

$ATC = \frac{TC}{Q} = \frac{VC + FC}{Q} = AVC + AFC$

$ATC - AVC = AFC = 5$

$FC = 5 \times 2000 = \boxed{10000}$