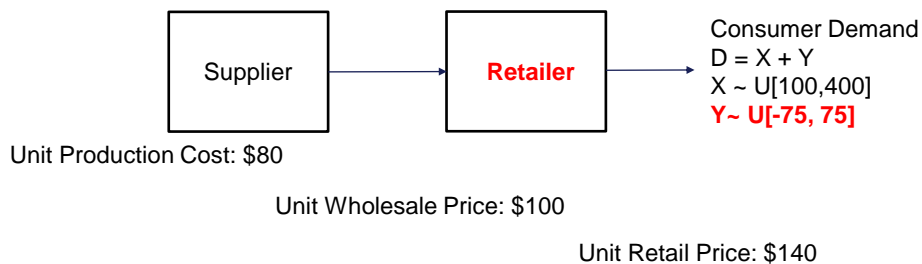


Forecast Sharing Game

1

Announcements

- Sign up or Log in at: <https://games.fathomd.com/>
- Enter the Session Code **s3t1** to join the game.



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The Forecast Sharing Game

1. Retailer observes the actual value of X and sends a report to the Supplier
2. Supplier receives the Retailer's report and determines production quantity Q
3. Demand = $X + Y$ is realized
4. Supplier delivers $\text{MIN}(Q, \text{Demand})$ to the Retailer, which are then sold to the end customers

3

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The Retailer's Decision Screen

fathomd Welcome, John

Back to Dashboard Title: OPRE 6302 - Operations Management Instructor: John Smith Session Code: spig

ROUND 4
DECISION TIME: 1:51

Retailer
DECISION
The Supplier is waiting for your Report of X .
The actual value of X in this round is: 263
Enter the X you want to report to the Supplier:

Submit

Profit Calculation
Supplier's Profit = $100 * \text{Minimum}(\text{Production Quantity}, \text{Final Customer Demand}) - 80 * \text{Production Quantity}$
Retailer's Profit = $(140 - 100) * \text{Minimum}(\text{Production Quantity}, \text{Final Customer Demand})$

How to Play
[Show more instructions](#)

- 1 Your Turn**
The Retailer observes X , Retailer's private information, and sends a Report of X to the Supplier.
- 2 Supplier's Turn**
The Supplier receives the Report of X and determines Production Quantity Q .
- 3 Final Demand Revealed**
Market Uncertainty Y is realized and Final Customer Demand is calculated as $D = X + Y$. Supplier delivers $\text{MIN}(Q, D)$ to the Retailer, who sells to end customers.

Current Game Values

Unit Production Cost	\$80
Unit Wholesale Price	\$100
Unit Retail Price	\$140
X is between	100 and 400
Y is between	-75 and 75
Final Customer Demand	$D = X + Y$
Partner Matched	Randomly
Role Assigned	Randomly
Time Limit Reached?	Your decision required

Previous Rounds	Your Role	Retailer's Report of X	Customer Demand	Supplier's Production Q	Final Sales	Round Profit	Cumulative Profit
3	Retailer	352	421	352	352	\$14080.00	\$22540.00
2	Supplier	294	245	294	245	\$980.00	\$8460.00
1	Supplier	374	432	374	374	\$7480.00	\$7480.00

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The Supplier's Decision Screen

fathomd Welcome, John

Back to Dashboard Title: OPRE 6302 - Operations Management Instructor: John Smith Session Code: spig

ROUND 4
DECISION TIME: 1:15

Supplier

DECISION
The Retailer has sent you the Report of X.
Retailer's Report of X: 263
What do you think is the actual value of X:

Enter your Production Quantity:

Submit **Open Support Tool**

Profit Calculation
Supplier's Profit = $100 * \text{Minimum}(\text{Production Quantity}, \text{Final Customer Demand}) - 80 * \text{Production Quantity}$
Retailer's Profit = $(140 - 100) * \text{Minimum}(\text{Production Quantity}, \text{Final Customer Demand})$

How to Play
Show more instructions

- Retailer's Turn**
The Retailer observes X, Retailer's private information, and sends a Report of X to the Supplier.
- Your Turn**
The Supplier receives the Report of X and determines Production Quantity Q.
- Final Demand Revealed**
Market Uncertainty Y is realized and Final Customer Demand is calculated as $D = X + Y$. Supplier delivers $\text{Min}(Q, D)$ to the Retailer, who sells to end customers.

Current Game Values

Unit Production Cost	\$80
Unit Wholesale Price	\$100
Unit Retail Price	\$140
X is between	100 and 400
Y is between	75 and 75
Final Customer Demand	$D = X + Y$
Partner Matched	Randomly
Role Assigned	Randomly
Time Limit Reached?	Your decision required

Previous Rounds	Your Role	Retailer's Report of X	Customer Demand	Supplier's Production Q	Final Sales	Round Profit	Cumulative Profit
3	Supplier	352	421	352	352	\$7040.00	\$11800.00
2	Retailer	294	245	294	245	\$9800.00	\$24760.00
1	Retailer	374	432	374	374	\$14960.00	\$14960.00

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The Decision Support Tool

fathomd Welcome, John

Back to Dashboard

ROUND 4
DECISION TIME: 1:24

Supplier

DECISION
The Retailer has sent you the Report of X.
Retailer's Report of X: 263
What do you think is the actual value of X:

Enter your Production Quantity:

Submit **Open Support Tool**

Decision Support Tool

Clear Support Tool

Enter a production quantity you might want to produce and press the Calculate button to see the resulting profit under different demands, which are based on all possible values of X.
 $SP = \$100.00 * \text{Min}(\text{Trial Production Quantity}, SD) - \$80.00 * \text{Trial Production Quantity}$

Enter Trial Production Quantity: **Calculate**

Sample Demand (SD)	Chances of Customer Demand <= SD	Supplier's Profit (SP)
25	0%	\$-21500
75	3%	\$-16500
125	11%	\$-11500
175	25%	\$-6500
225	42%	\$-1500
275	58%	\$3500
325	75%	\$6000
375	89%	\$6000
425	97%	\$6000
475	100%	\$6000

Profit Calculation
Supplier's Profit = $100 * \text{Minimum}(\text{Production Quantity}, \text{Final Customer Demand}) - 80 * \text{Production Quantity}$
Retailer's Profit = $(140 - 100) * \text{Minimum}(\text{Production Quantity}, \text{Final Customer Demand})$

Current Game Values


Unit Production Cost	\$80
Unit Wholesale Price	\$100
Unit Retail Price	\$140
X is between	100 and 400
Y is between	75 and 75
Final Customer Demand	$D = X + Y$
Partner Matched	Randomly
Role Assigned	Randomly
Time Limit Reached?	Your decision required

Previous Rounds	Your Role	Retailer's Report of X	Customer Demand	Supplier's Production Q	Final Sales	Round Profit	Cumulative Profit
3	Supplier	352	421	352	352	\$7040.00	\$11800.00
2	Retailer	294	245	294	245	\$9800.00	\$24760.00
1	Retailer	374	432	374	374	\$14960.00	\$14960.00

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The Retailer's Results Screen


Welcome, John

[Back to Dashboard](#)
Title: OPRE 6302 - Operations Management
Instructor: John Smith
Session code: apig

ROUND 4

REVIEW TIME: 1:30



Retailer

ROUND RESULTS

The Final Customer Demand has been realized. Your profit has been calculated. Please press 'Continue' when you are done reviewing your results.

Actual Value of X	263
Your Report of X	263
Supplier's Production Quantity	263
Final Customer Demand X-Y	244
Your Final Sales to Customer	244
Your Payment to Supplier	\$24400
Your Sales Revenue	\$341600
Your Profit in this Round	\$9760.00
Your Cumulative Profit	\$323000

[Continue](#)

How to Play

[Show more instructions](#)

- Your Turn**
The Retailer observes X, Retailer's private information, and sends a Report of X to the Supplier.
- Supplier's Turn**
The Supplier receives the Report of X and determines Production Quantity Q.
- Final Demand Revealed**
Market Uncertainty Y is realized and Final Customer Demand is calculated as D = X + Y. Supplier delivers Min (Q, D) to the Retailer, who sells to end customers.

Current Game Values

Unit Production Cost	\$80
Unit Wholesale Price	\$100
Unit Retail Price	\$140
X is between	100 and 400
Y is between	75 and 75
Final Customer Demand	D = X + Y
Partner Matched	Randomly
Role Assigned	Randomly
Time Limit Reached?	Your decision required

Profit Calculation

Supplier's Profit = $100 * \text{Minimum (Production Quantity, Final Customer Demand)} - 80 * \text{Production Quantity}$

Retailer's Profit = $(140 - 100) * \text{Minimum (Production Quantity, Final Customer Demand)}$

Previous Rounds	Your Role	Retailer's Report of X	Customer Demand	Supplier's Production Q	Final Sales	Round Profit	Cumulative Profit
4	Retailer	263	244	263	244	\$9760.00	\$323000
3	Retailer	252	421	352	352	\$14080.00	\$325400
2	Supplier	294	245	294	245	\$980.00	\$8460.00
1	Supplier	374	432	374	374	\$7480.00	\$7480.00

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The Supplier's Results Screen

[Home](#) [John](#)

[Back to Dashboard](#)

Title: OPRE 6302 - Operations Management
Instructor: John Smith

Session Code: ajpn

ROUND 4

REVIEW TIME: 1:42

Supplier

ROUND RESULTS

The Final Customer Demand has been realized. Your profit has been calculated. Please press 'Continue' when you are done reviewing your results.

Retailer's Report of X	263
Your Production Quantity	263
Final Customer Demand K-Y	244
Your Final Sales to Retailer	244
Your Production Cost	\$21040
Your Sales Revenue	\$24400.00
Your Profit in this Round	\$3380.00
Your Cumulative Profit	\$35160.00

Continue

Profit Calculation

Supplier's Profit = $100 * \text{Minimum (Production Quantity, Final Customer Demand)} - 80 * \text{Production Quantity}$
 Retailer's Profit = $(140 - 100) * \text{Minimum (Production Quantity, Final Customer Demand)}$

How to Play

Show more Instructions

1. Retailer's Turn

The Retailer observes X, Retailer's private information, and sends a Report of X to the Supplier.

2. Your Turn

The Supplier receives the Report of X and determines Production Quantity Q.

3. Final Demand Revealed

Market Uncertainty Y is realized and Final Customer Demand is calculated as $D = X + Y$. Supplier delivers $\min(Q, D)$ to the Retailer, who sells to end customers.

Current Game Values

Unit Production Cost	\$80
Unit Wholesale Price	\$180
Unit Retail Price	\$140
X is between	100 and 400
Y is between	-75 and 75
Final Customer Demand	$D = X + Y$
Partner Matched	Randomly
Role Assigned	Randomly
Time Limit Reached?	Your decision required

Previous Rounds	Your Role	Retailer's Report of X	Customer Demand	Supplier's Production Q	Final Sales	Round Profit	Cumulative Profit
4	Supplier	263	244	263	244	\$3360.00	\$35160.00
3	Supplier	352	241	352	352	\$7040.00	\$18000.00
2	Retailer	294	245	294	245	\$9800.00	\$24760.00
1	Retailer	374	432	374	374	\$14960.00	\$14960.00

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Let's Play the Game

- Try your best to submit your decision in each round within allotted time (1min for retailers, 2mins for suppliers)
 - Keeping to the time limit will ensure we finish the game on time.
- Remember to click “Submit” or “Continue” once you make a decision or complete reviewing results.
- NOTE that I can set auto-advance option
- Good luck!

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Debriefing the Game

- How did you report as a retailer?
- How did you determine production quantity as a supplier?
- What affected your decisions in the experiment?

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