

ECON 5103 Unit 10 video 2

Benefits of price discrimination: numerical example

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List of all potential buyers for your pizza, and their reservation prices:

<u>Potential buyer</u>	<u>Buyer's Reservation Price</u>
Grumpy	\$20
Sneezy	\$15
Angry	\$10
Skinny	\$7

It cost you \$8 to produce and sell each pizza.
You are also a psychic, so you know each buyer's reservation price.

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Suppose government lets you charge any price to anyone for your pizza.

Your profit-maximizing strategy:

Produce a pizza for Grumpy and charge him \$20 for it.

Produce a pizza for Sneezzy and charge her \$15 for it.

Produce a pizza for Angry and charge him \$10 for it.

Your total revenue: $\$20 + \$15 + \$10 = \45.00

Your total cost: $\$8 \times 3 = \24.00

Your total profit: $\$45 - \$24 = \$21.00$

Suppose that government forces you to charge the same price per pizza to all buyers of pizza. What is your best option from the following?

Option 1: Charge \$20 per pizza. Grumpy will buy it.

Your profit: $\$20 - \$8 = \$12.00$

Option 2: Charge \$15 per pizza. Grumpy will buy one for \$15 and Sneezzy will buy one for \$15.

Your profit: $\$15 + \$15 - \$8 - \$8 = \$14.00$ <--best option

Option 3: Charge \$10 per pizza. Grumpy will buy one for \$10 and Sneezzy will buy one for \$10 and Angry will buy one for \$10.

Your profit: $\$10 + \$10 + \$10 - \$8 - \$8 - \$8 = \$6.00$