A) Example given:

cart value = 790 — 2€ surcharge

distance = 2235 — 1000 + 500 + 500 + 235
200 + 100 + 100 + 100

= 500 surcharge.

items = 4 — no surcharge

time = not peak — no surcharge

total delivery fee = 2€ + 5€

= 7€

B) Base case!

cart value = 1500 — no surcharge

distance = 700m — 2€

items = 3 — no surcharge

time = not peak — no surcharge

total = 2€

C) Cart value surcharge:

cart value = 8€ → 10€ − 8€ = 2€ surcharge

distance = 9€ → 2€

items = 2 → x

time = not peak → x

total = 2€ + 2€ = 4€

D) delivers distance surcharge:

cart value = 20€ → x

distance = 1500 → 1000 + 500 + 1 = 2€ + 1€ + 1€ = 4€

items = 4 → x

time = not peak → x

total = 4€

E) number of items surcharge, not bulk:

cart value = 12€ → x

distance = 987 → 2 * 2€

items = 7 → 4 + 3 → 3(5€) = 15€

time = not peak → x

total = 2€ + 15€

= 35€.

F) number of items surcharge, bulk:

cart value = 110€ → x

distance = 12€ → 10€ + 2€ = 2€ + 10€ = 30€

items = 16 → 4 + 12 + bulk = 12(6€) + 12€

time = not peak → x = 72€

total = 30€ + 72€ = 102€

G) max delivery fee:

cart value = 2€ → 1000 - 2€ = 800

distance = 500€ → 1000 + 8(500) = 200 + 8(100) = 1000

items = 2 → x

time = not peak → x

total = 800 + 100 = 180€

max = 15€

H) free delivery:

cart value = 22000 → free

total = 0

I) rush hour:

cart value = 18000 → x

distance = 1000 → 1000 + 1000 = 2000 + 1000 = 3000

items = 7 → 4 + 3 = 3(500) = 1500

time = rush hour → × 1.2

total = ~~2000 × 1.2~~ (3000 + 1500) × 1.2

= 5400

J) rush hour, max delivery fee:

cart value = 2700 → x

distance = 2700 → 1000 + 3(1000) + 2000 = 2000 + 3(1000) + 1000
= 6000

items = 19 → 4 + 15 + bulk = 15(500) + 1200
= 8700

time = rush hour → × 1.2

total = (6000 + 8700) × 1.2

= 17640

max = 15000

k) ~~on~~ rush hour, free delivery:

cart value = 217 cc → free

time = rush

total = 0