

# Mechanism Design for Social Good

Provision and Targeting for Vulnerable Populations

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Exercise Session

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# Setup

**Goal of this exercise:** Understand (visually) who is helped by in-kind transfers.

## Two goods

- education  $g$
- cash  $x$

**Utilities**  $u(g,x) = \alpha \log g + (1-\alpha) \log x$

## Optimal consumption:

- $\alpha$  fraction of wealth on education
- $(1-\alpha)$  fraction of wealth as cash

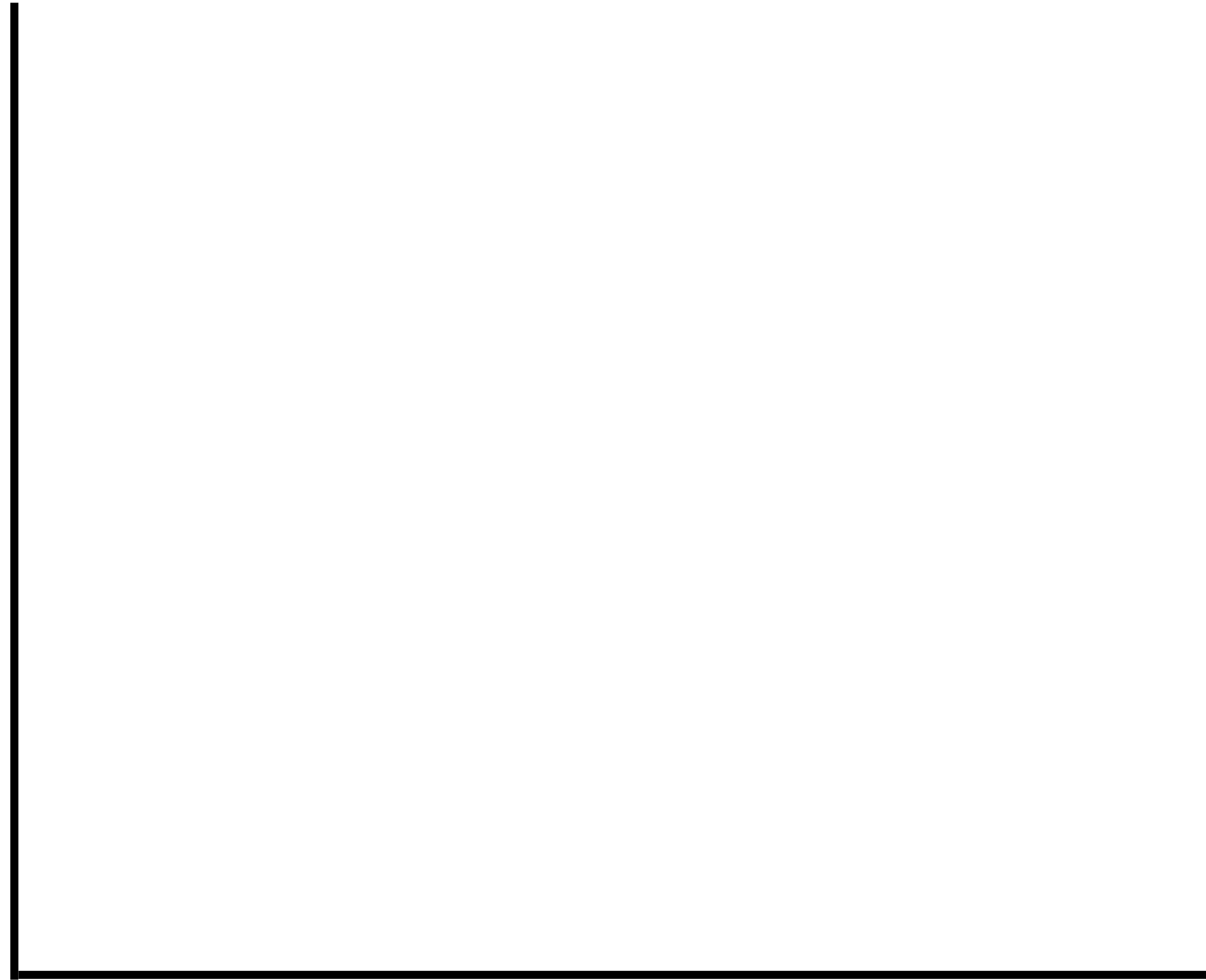
# Part 1a

education  $g$

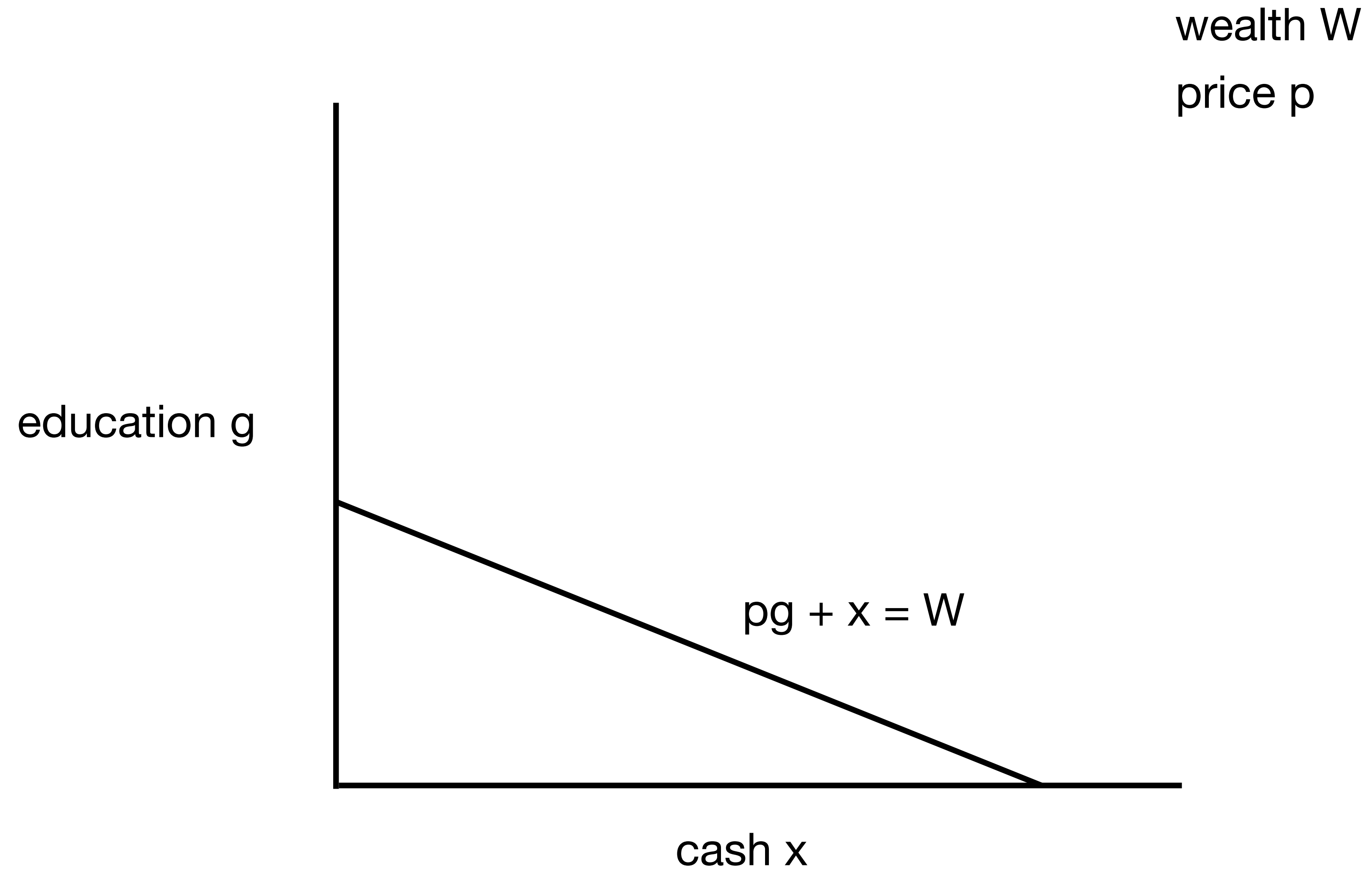
cash  $x$

wealth  $W$

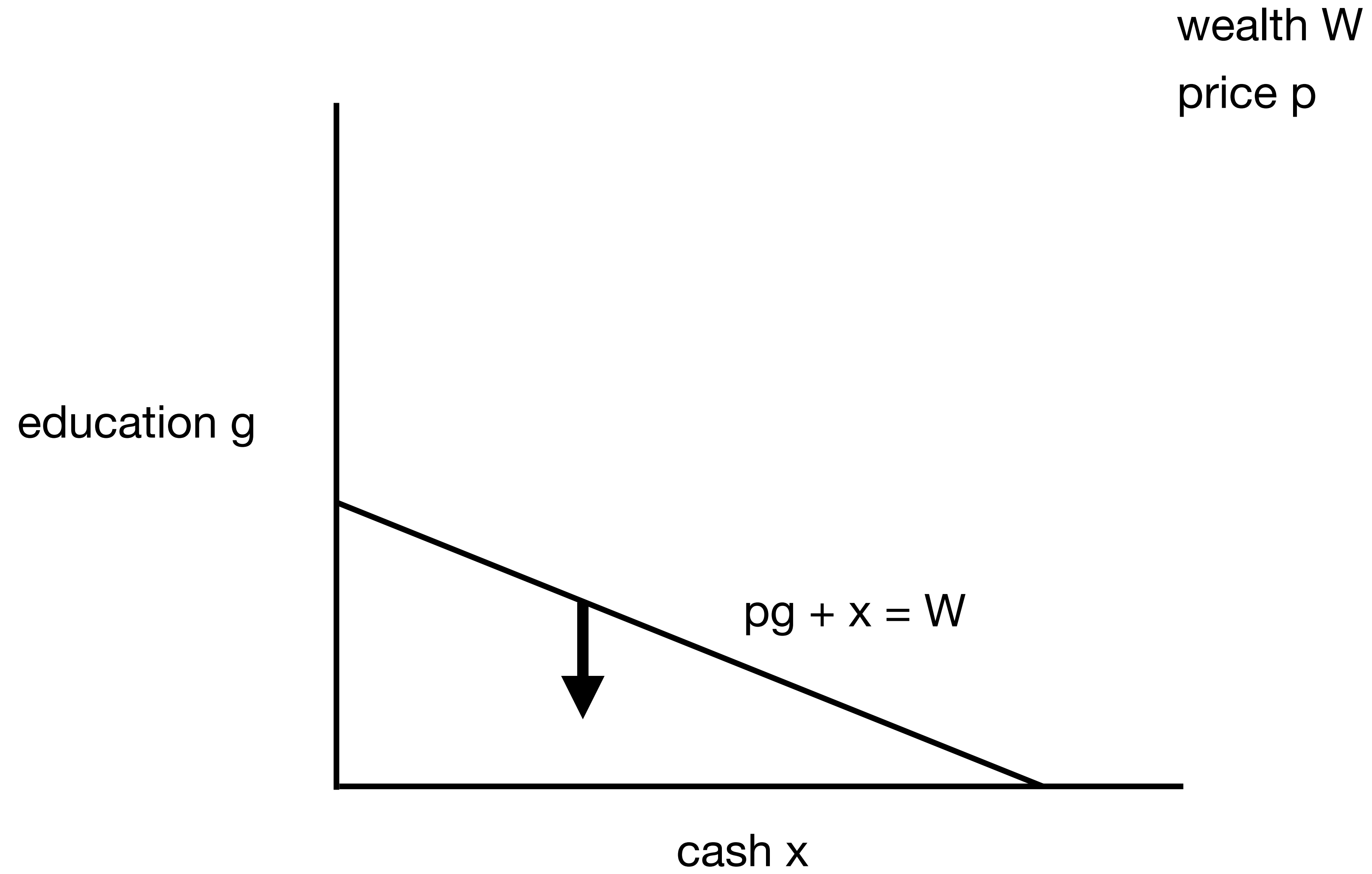
price  $p$



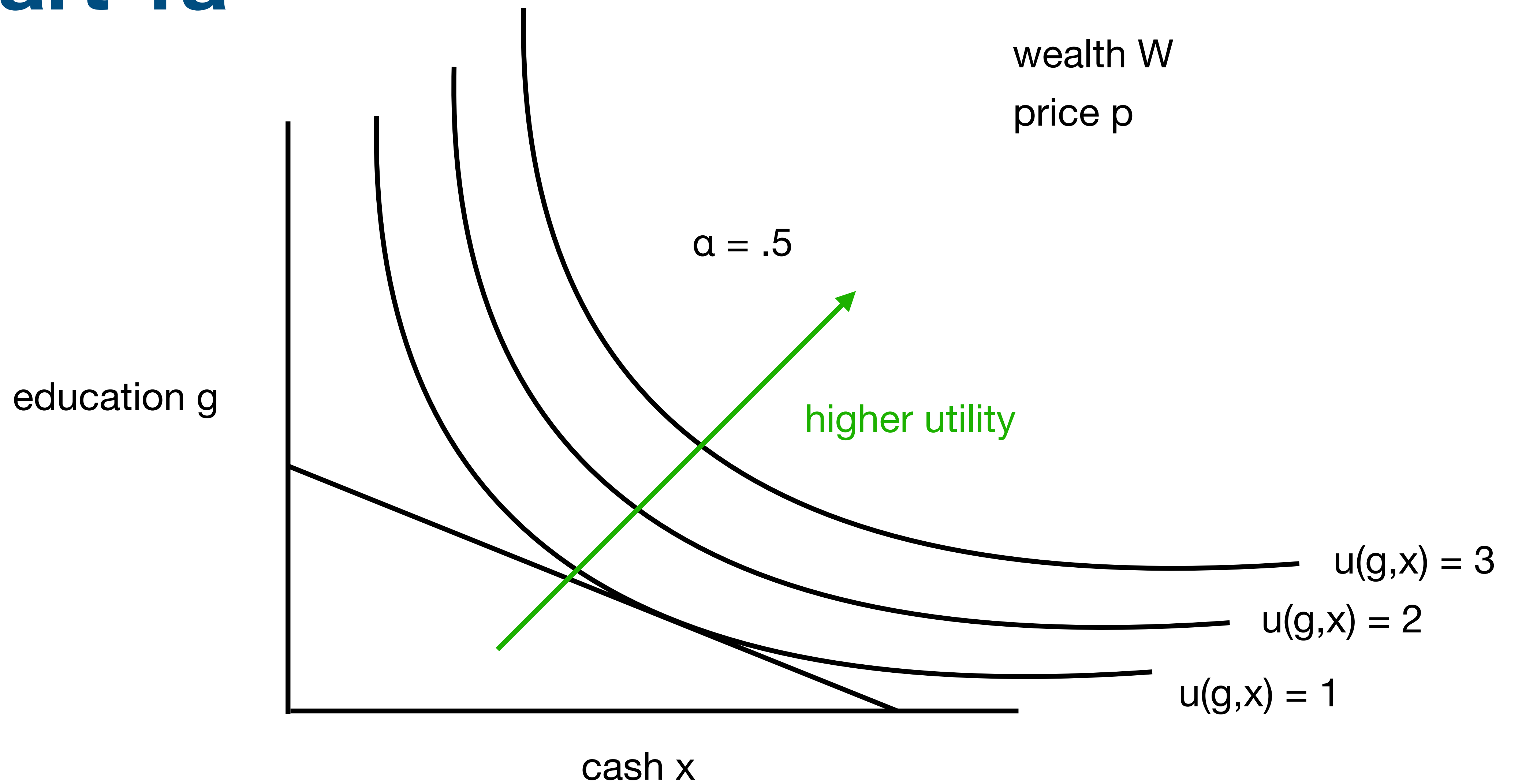
# Part 1a



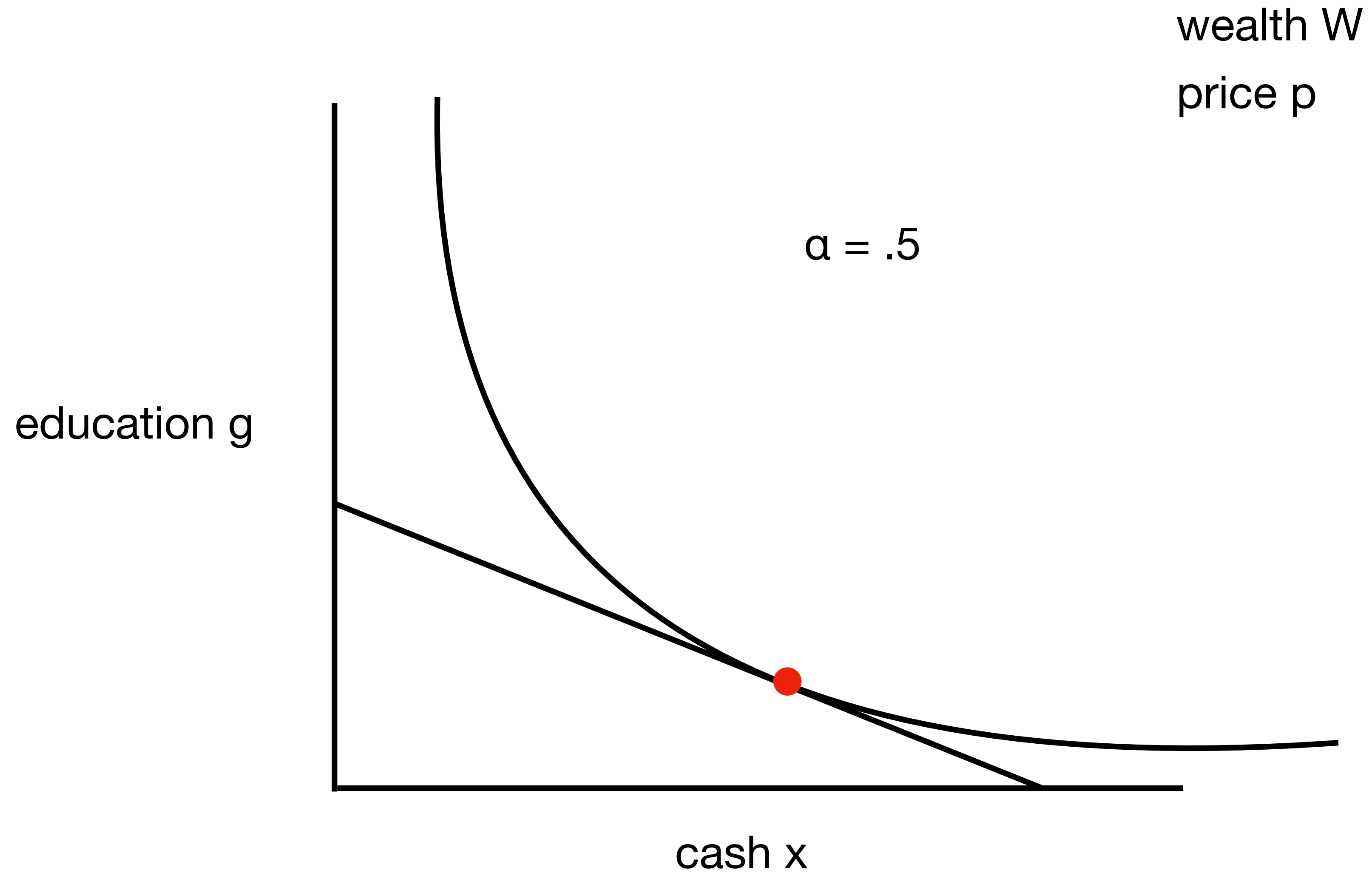
# Part 1a



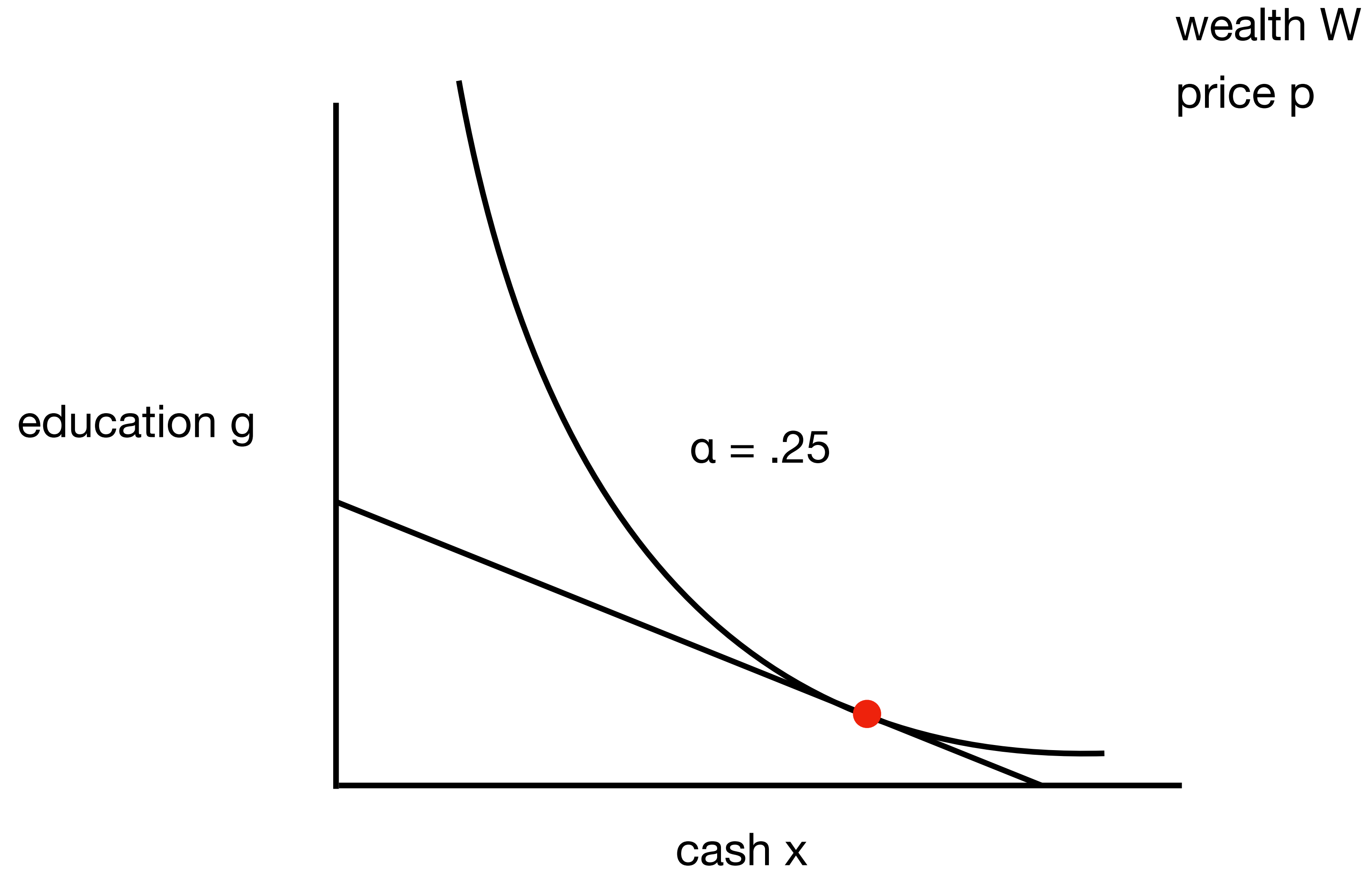
# Part 1a



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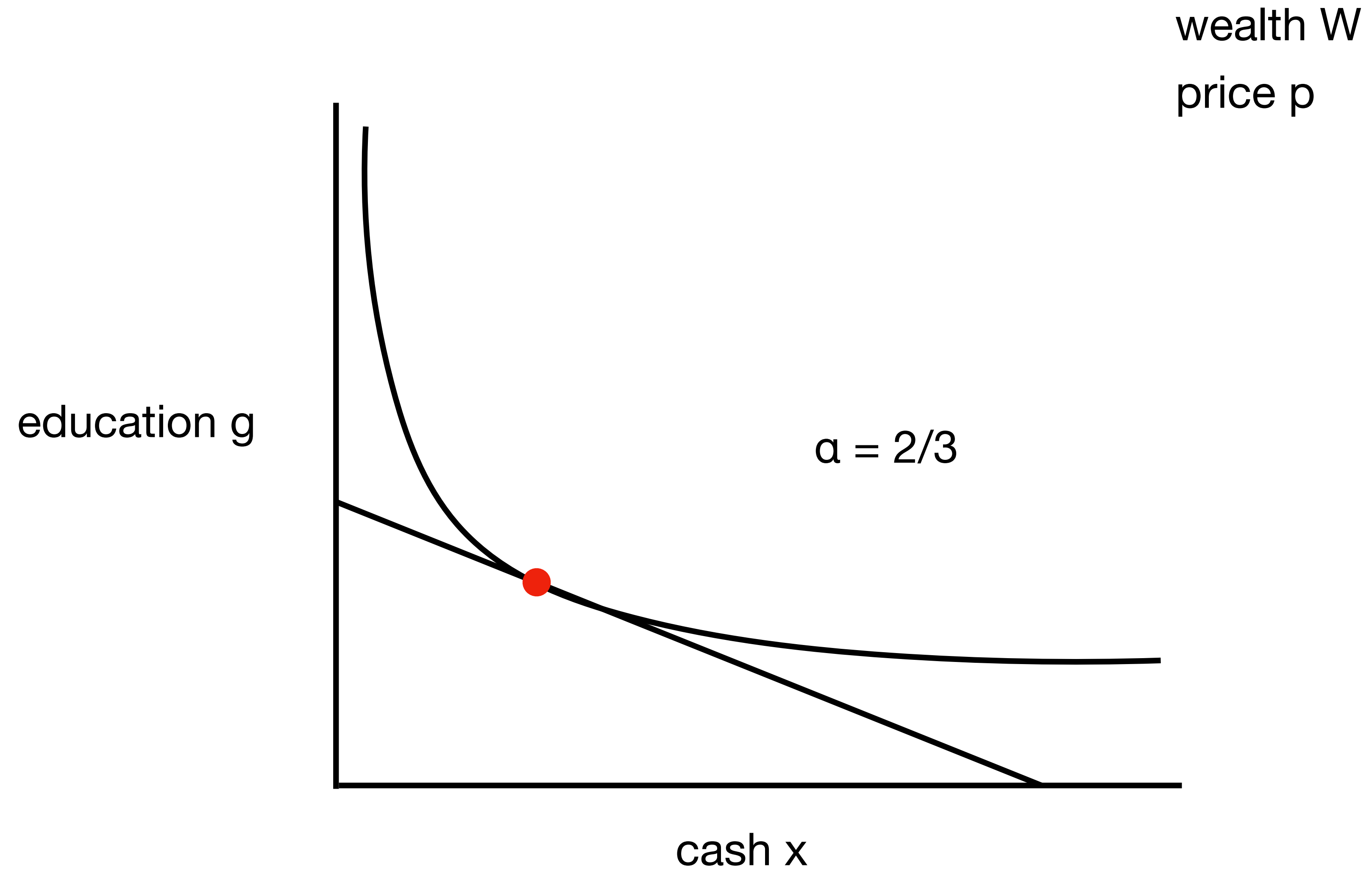


# Part 1a

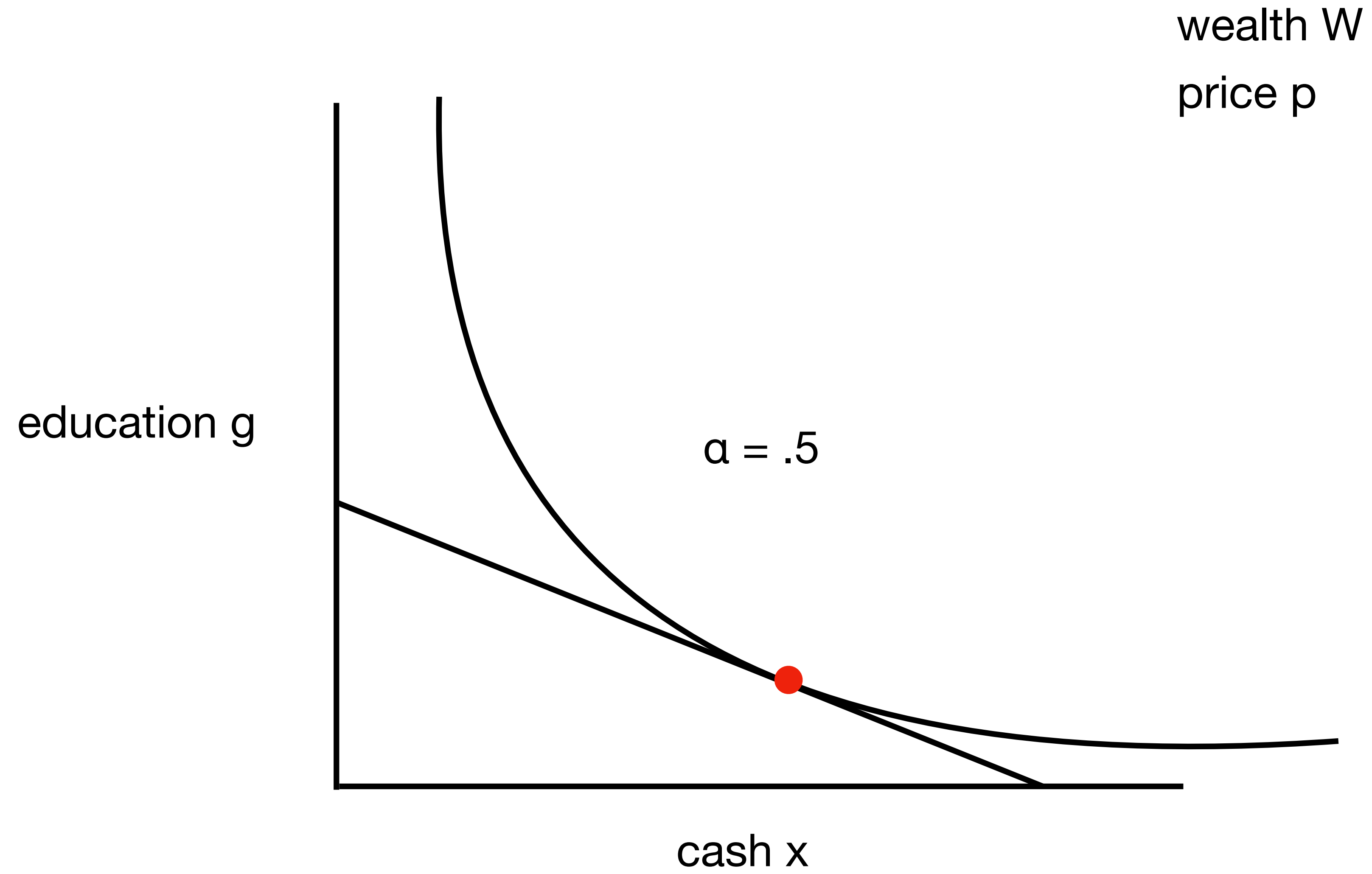




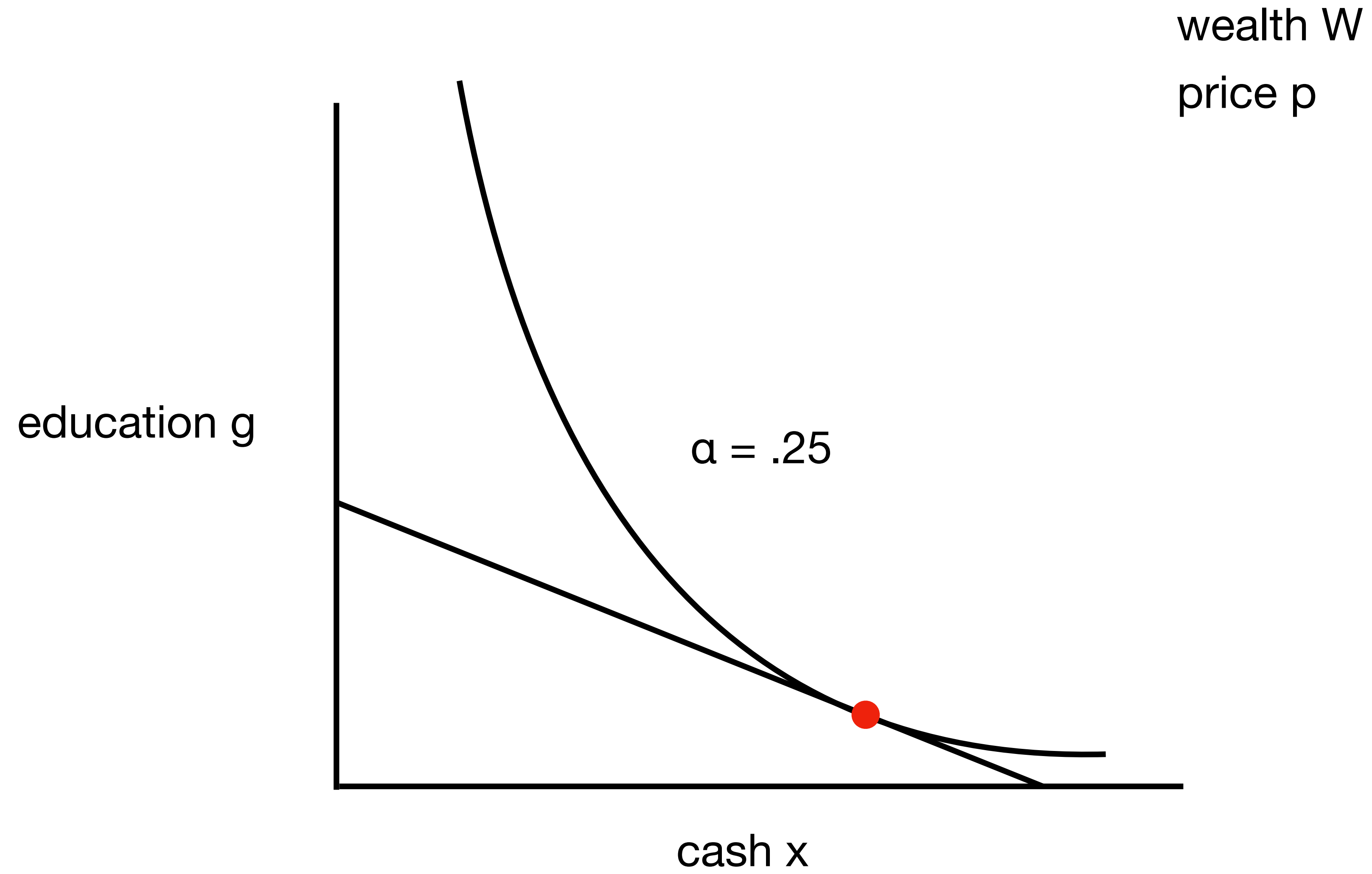
# Part 1a



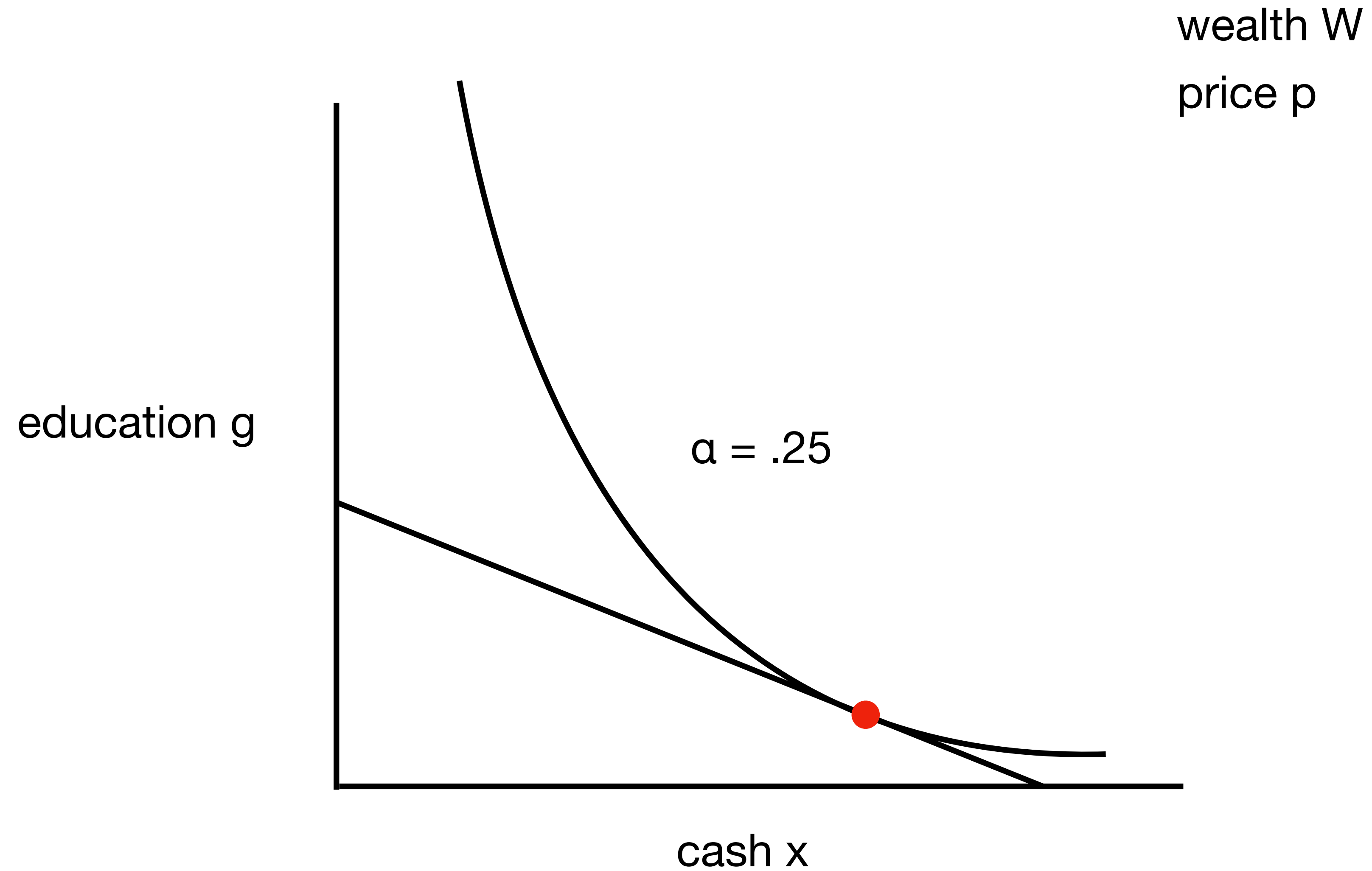
# Part 1a



# Part 1a

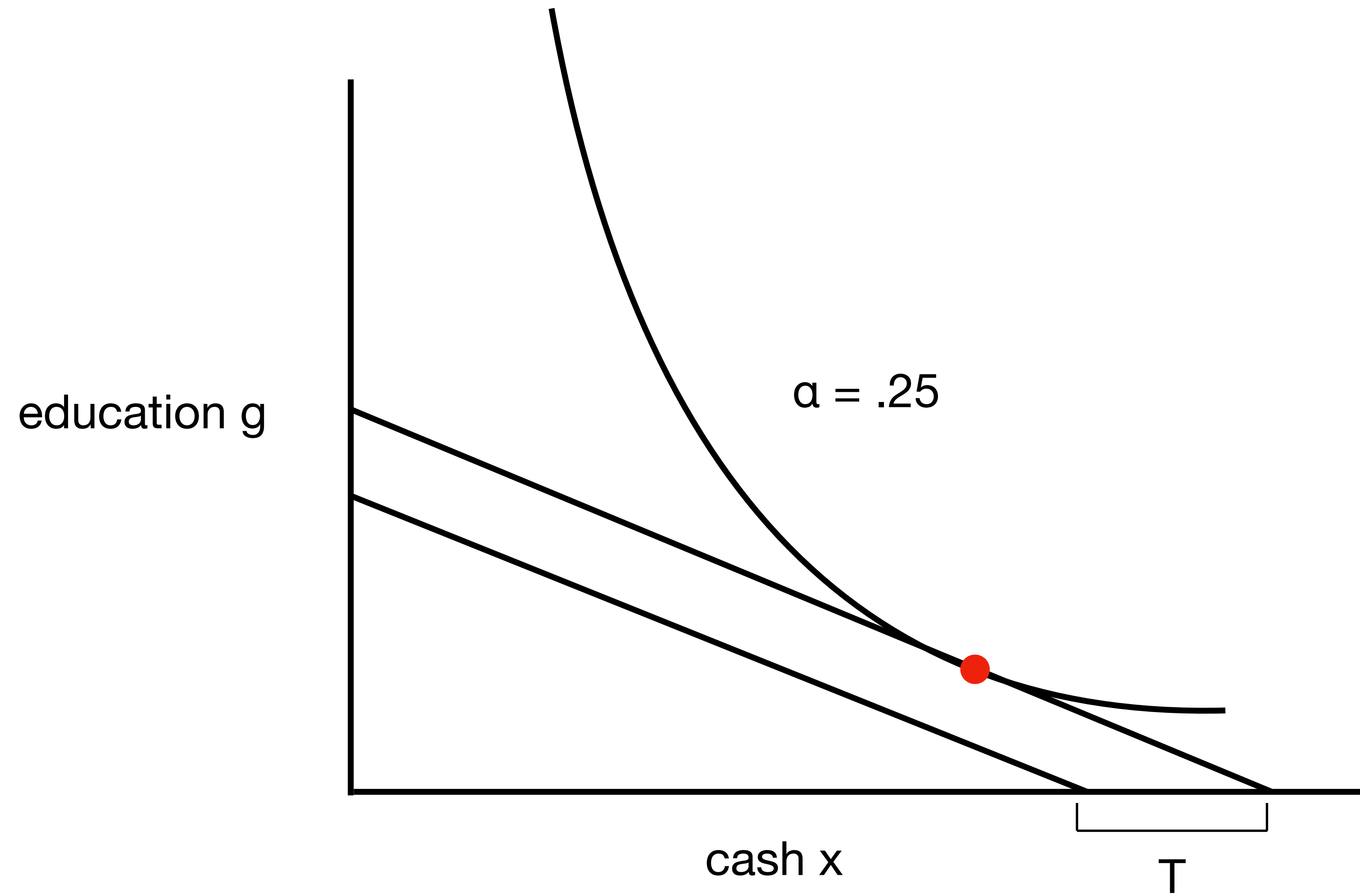


# Part 1a

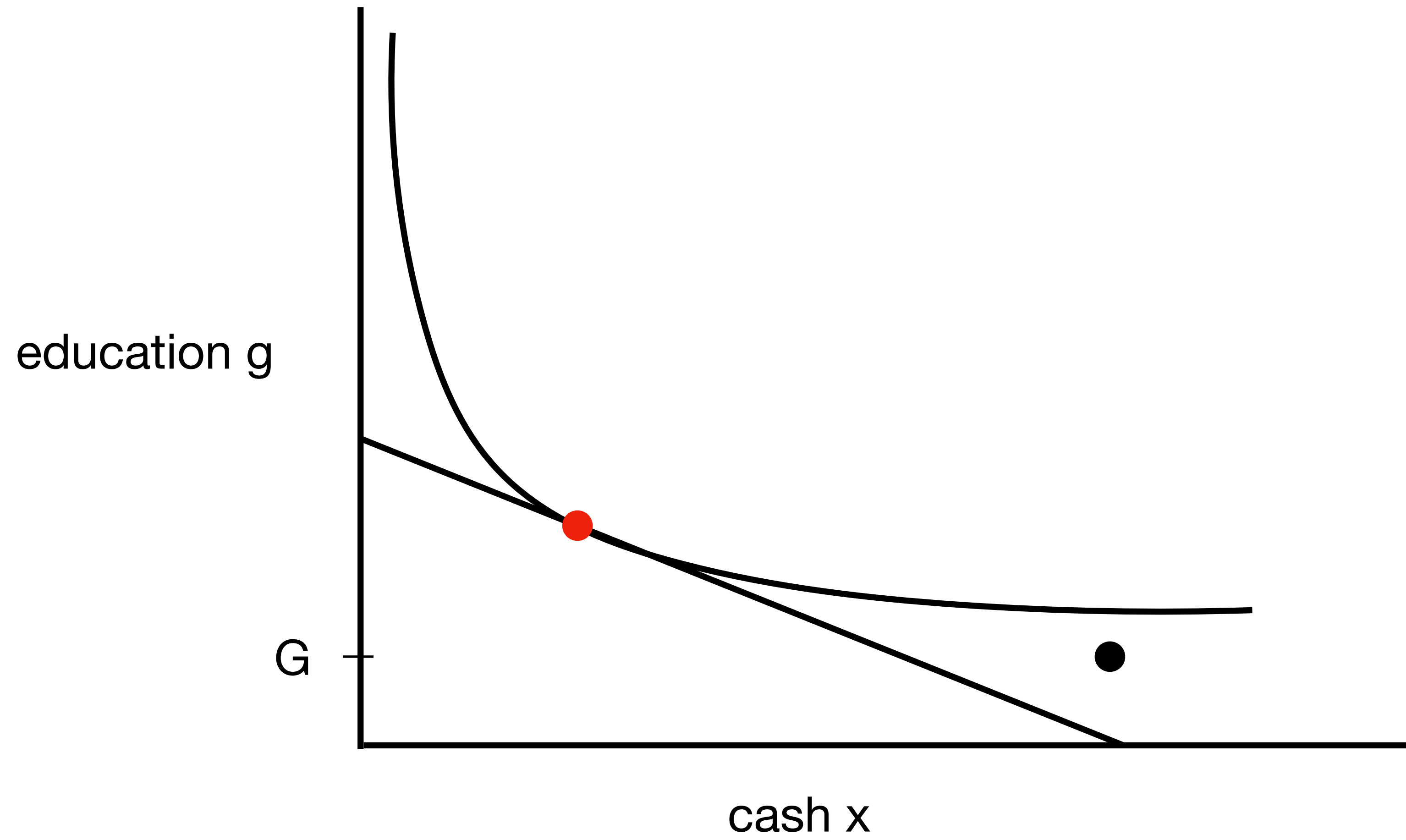


**To find optimal consumption:** Find where level curve exactly touches budget set.

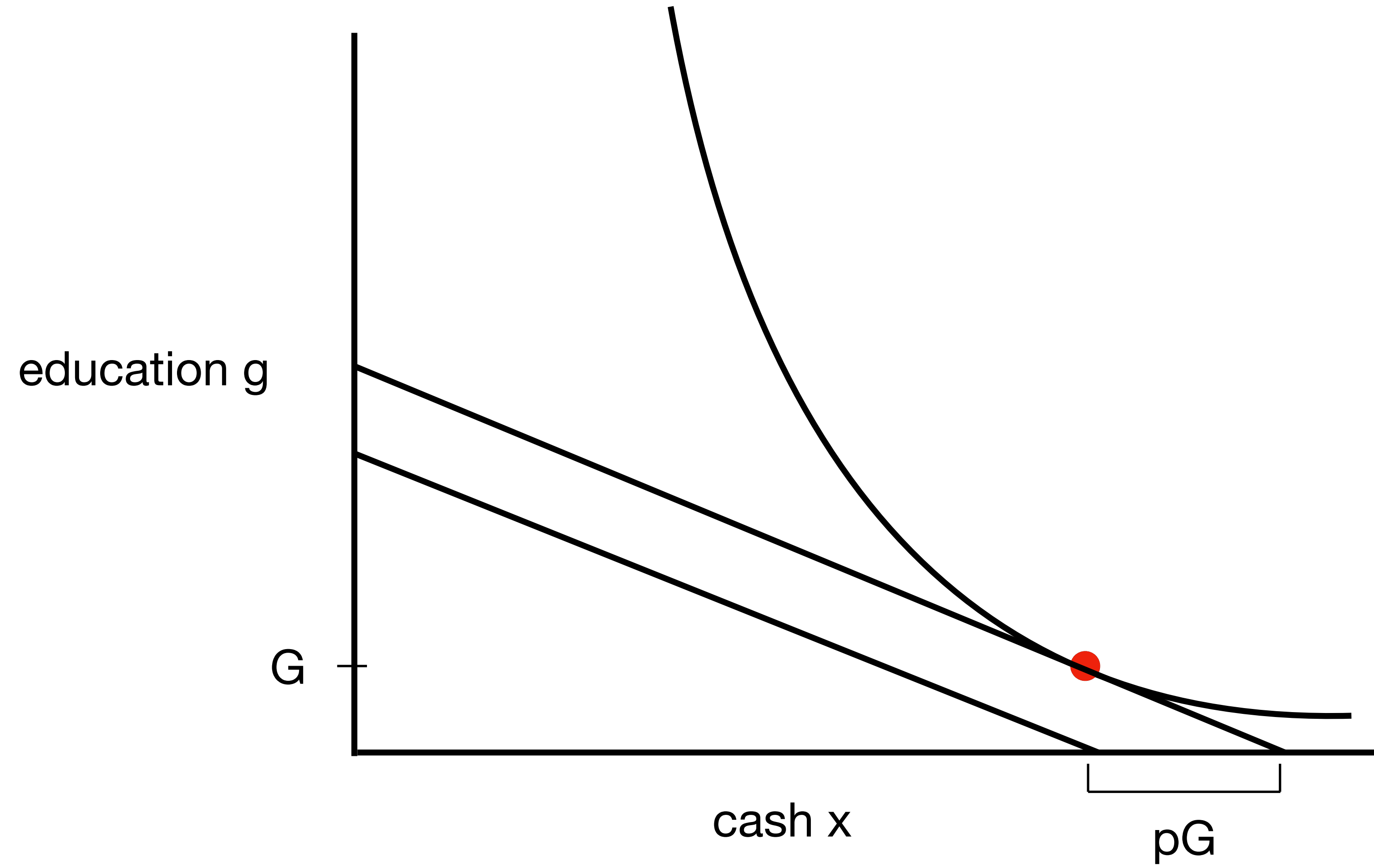
# Part 1b



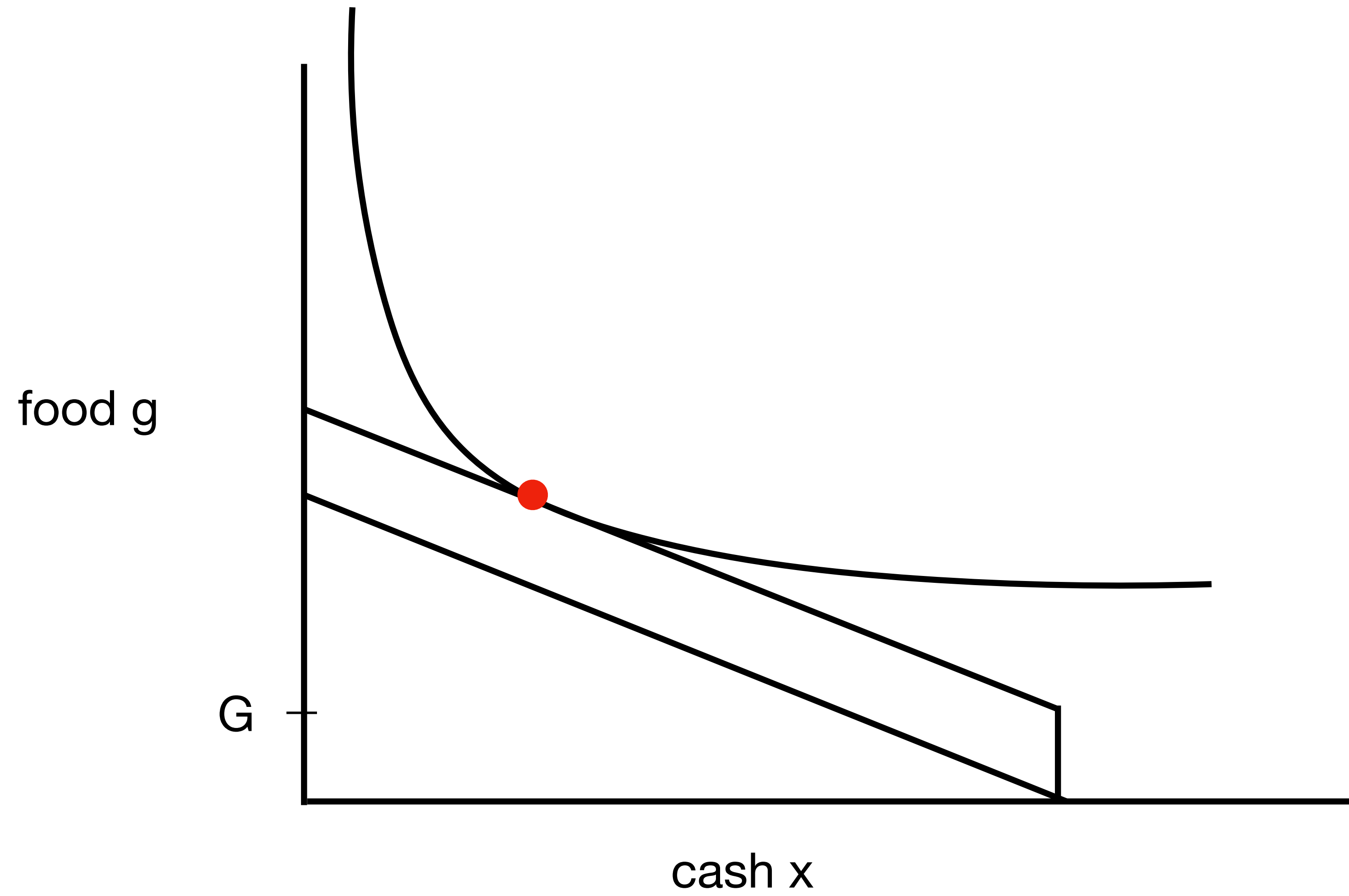
# Part 1c



# Part 1c

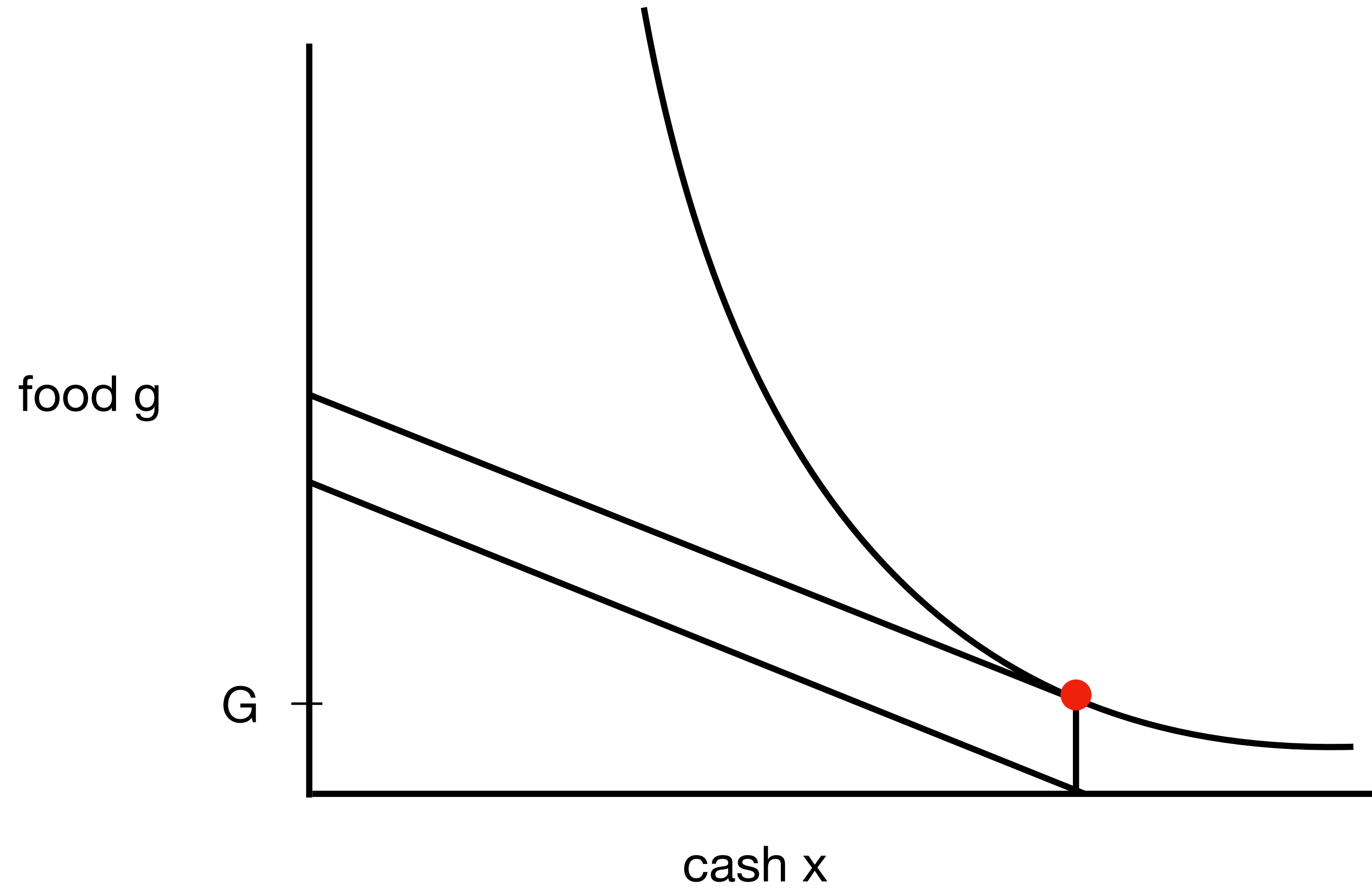


# Part 1d





# Part 1d



# Punchline

In-kind provision can have a differential impact on recipient's consumption bundles.

=> In-kind provision can be a form of self-targeting.