Quiz 5

Your name and student ID number

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⇐ Name of the student on your left

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Name of the student on your right ⇒

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Net and gross demands

Attila only cares about two goods and his preferences can be represented by the utility function $u(x, y) = \min\{4x, 2y\}$, where x is the amount of *exes* that he consumes, and y is the amount of *whys* that he consumes.

Let p_x denote the unit price of *exes* and let us assume that the unit price of *whys* is 2. Attila currently owns 4 units of *exes* and 10 units of *whys*.

1. Write a mathematical equation representing Attila's budget constraint.

2. Solve Attila's constrained utility-maximization problem and write his gross demand function for *exes*, that is $x(p_x)$.

3. Write Attila's net demand function for *exes*, that is $d_x(p_x)$.

4. Assume that the initial endowment and the price of *whys* do not change. Will Attila ever consume more than his initial 4 units of *exes*? Justify your answer.