ECON 0100 | Fall 2024 | Homework F
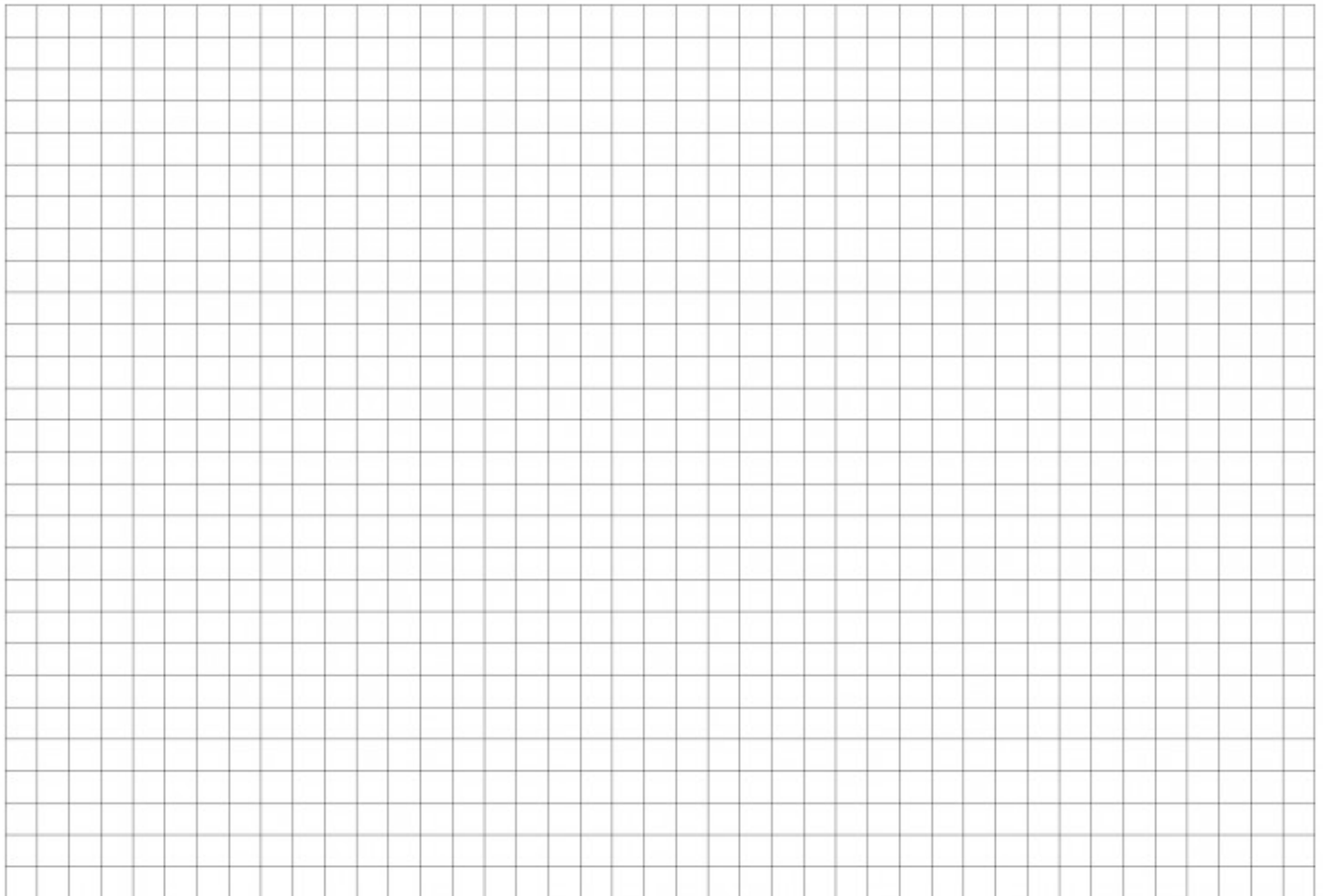
Due: Sunday, December 8

Homework is designed to both test your knowledge and challenge you to apply familiar concepts in new applications. Answer clearly and completely; use this sheet to show your work so you can later understand your thought process; you are welcomed and encouraged to work in groups as long as your work is your own. Submit your work on Gradescope when you're finished.

Hagrid's Problem

Hagrid, the Keeper of Keys and Grounds at Hogwarts School of Witchcraft and Wizardry, is considering purchasing two goods his upcoming Halloween celebration: pumpkins (P) at a price of 1 galleon, and butter beer (B) at a price of 4 galleons (both of which are normal goods). Hagrid's budget cannot exceed his income of 100 galleons from his business placing rescued magical creatures in good homes.

Q1 (of 4) | Budget Constraint

Draw Hagrid's budget constraint with pumpkins on the horizontal axis.

Q2 (of 4) | Consciousness Considerations

Due to a recent study showing that many magical creatures have consciousness, the Ministry of Magic began subsidizing Hagrid's business, ensuring more have safe and loving homes. Show the effect of this ethical move on Hagrid's optimal consumption bundle.

Use words to describe the intuition for your conclusions, again as if you were explaining the result to a friend.

Q3 (of 4) | Pumpkin's of Plenty

As the Halloween season approaching, the much appreciated news arrived that the weather had been especially good for pumpkins this season. On the graph below, show the effect of the weather on Hagrid's budget constraint from Q2. No need to include the budget from Q1.

Q4 (of 4) | Changing Choices

Add Hagrid's indifference curve to the figure in Q3 to show the effect the weather had on his optimal consumption bundle of pumpkins. No need to describe the change in the optimal consumption bundle of butter beer.

Use words to describe the intuition for your conclusions, as if you were explaining the result to a friend.