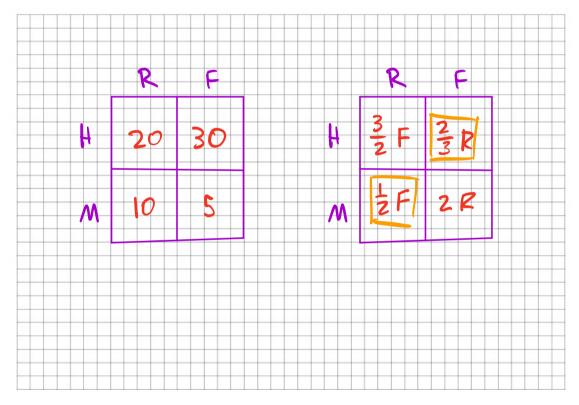# Econ 0100 | Classwork A2

Q1 | Specialization

In Classwork A2, we found that Hagrid can bake 20 rock cakes (R) or 30 fruitcakes (F) in one day and Professor McGonagall can bake 10 rock cakes and 5 fruitcakes in one day. Use the production table and opportunity cost table developed in Classwork A1 to determine who should specialize in each good if they want to jointly produce more.

	R	F
H	20	30
M	10	5

	R	F
H	$\frac{3}{2}$ F	$\frac{2}{3}$ R
M	$\frac{1}{2}$ F	2 R

Specialize in R: __MC. G.__

Specialize in F: __HAGRID__

Q2 | Trade

Suppose Hagrid and McGonagall decide they want to specialize and trade goods. After they specialize, what is a trade that would make them both better off?

Find any ratio between their op. costs: $\frac{3}{2}F > xF > \frac{1}{2}F$.
For example 1R for 1F would work.

1 R for _____1_____ F

Q3 | Changing Labor

It turns out McGonagall receives great enjoyment from her side gig as a baker and wants to double her hours. Set up McGonagall's old and new PPF on the same graph. What is McGonagall's new opportunity cost of rock cakes (R)? Write a short description about how this increase in hours would impact the trade with Hagrid you found in $Q3$.

McGonagall's PPF

New Op. Cost
$20R = 10F$
$1R = \frac{1}{2}F$

Her new opportunity cost has not changed! Because the slope and her op. cost have not changed, she will still specialize in F, and the exchange rate will not need to be different.