Basic Principle of Specialization and Trade - it pays for a country to specialize and trade even if that country is more productive than a potential trading partner in all economic activities.

Comparative Costs - specialization and trade benefits two countries if the comparative costs of two products within the two countries are different.

Mexico (tons)

Product	A	B	C	D	E	
Avocados	0	20	24	40	60	so 1S = 4A
Soybeans	15	10	9	5	0	or A = 1/4S

U.S. (tons)

Product	R	S	T	U	V	
Avocados	0	30	33	60	90	so 1S = 3A
Soybeans	30	20	19	10	0	or A = 1/3S

Comparative Advantage - a country has a comparative advantage in a product, if it can produce at a lower domestic opportunity cost than a potential trading partner.

The U.S. has a comparative advantage over Mexico in soybeans since the U.S. only has to give up three tons of avocados to get one ton of soybeans whereas Mexico must give up four tons. Mexico has a comparative advantage in avocados since Mexico only has to give up 1/4 ton of soybeans to get a ton of avocados whereas the U.S. has to give up 1/3 of ton of soybeans to get a ton of avocados.

Thus soybeans are relatively cheap in the U.S. while avocados are relatively cheap in Mexico.

Terms of Trade, Gains From Trade

The U.S. will specialize in soybeans if it can get more than 3 tons of avocados for one ton of soybeans by trading with Mexico. Mexico will specialize in avocados if it can get one ton of soybeans for less than 4 tons of avocados by trading with the U.S.

Suppose the two countries agree on an exchange rate of 1 S = 3.5 A, which is called the terms of trade. Suppose that before trade, Mexico is at point C and the U.S. is at point T. After specialization and trade, Mexico moves to point E and the U.S. to point R.

	Output before Specialization (1)	Output After Specialization (2)	Amounts Traded (3)	Outputs After Trade (4)	Gains From Trade (4-1)
Country					
Mexico	24 A	60 A	-35A	25 A	1 A
	9 S	0 S	+ 10 S	10 S	1 S
U.S.	33 A	0 A	+ 35 A	35 A	2 A
	19 S	30 S	-10 S	20 S	1 S

Trade increases output in both countries.