Ricardian Model: Practice Problem Key
International Trade
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Question 1

a) The USA has the absolute advantage in both goods X and Y, because the USA requires fewer resources, hours, to produce each good.

b) For Mexico, $\frac{P_X^A}{P_Y^A} = \frac{6}{4} = 1.5$, and, for the USA, $\frac{P_X^A}{P_Y^A} = \frac{3}{3} = 1$.

		TVs (X)	Computers (Y)
c)	Mexico	$\frac{6}{4} = 1.5$	$\frac{4}{6} = \frac{2}{3}$
	USA	$\frac{3}{3} = 1$	$\frac{3}{3} = 1$

d) The USA has a comparative advantage in good X, because its opportunity cost is lower $(1 < 1.5)$. Mexico has a comparative advantage in good Y, because its opportunity cost is lower $(\frac{2}{3} < 1)$.

e) See Figure 1 below.

f) $1 < \frac{P_X^{TOT}}{P_Y^{TOT}} < 1.5$

The TOT must lie between the autarky price ratios. If 1 TV exchanges for less than 1 computer, then the USA will not have an incentive to engage in trade. If 1 TV exchanges for more than 1.5 computers, then Mexico will not have an incentive to engage in trade.

g) For the USA to export good X, the following condition should hold:

$$3 \cdot W^{US} < E \cdot 6 \cdot W^M$$

For Mexico to export good Y, the following condition should hold:

$$E \cdot 4 \cdot W^M < 3 \cdot W^{US}$$

Rewriting both of these conditions in terms of $\frac{W^{US}}{E \cdot W^M}$ and combining them yields

$$\frac{4}{3} < \frac{W^{US}}{E \cdot W^M} < 2$$

Question 2

a) d

b) a

c) c

d) b

e) d

Figure 1: USA and Mexico PPFs

USA

Y

Slope = 1

20

20

X

Mexico

Y

Slope = 1.5

15

10

X