

Finance 30220
Quiz #2 Solutions

Name _____

Section _____

- 1) Suppose that the US and Japan produce two goods: Apples and Oranges. We have the following local prices and production levels in Japan and the US (US prices are in dollars, Japanese prices are in Yen).

	US Production	Japanese Production	US Price	Japanese Price
Apples	2M	3M	\$4	Y 280
Oranges	4M	2M	\$6	Y 490

Suppose that the current exchange rate is \$0.0131 per Yen.

- a) Calculate GDP in the US and Japan using the market exchange approach.

$$\text{US: } 2\text{M}(\$4) + 4\text{M}(\$6) = \$32\text{M}$$

$$\text{Japan: } 3\text{M}(\text{Y}280) + 2\text{M}(\text{Y}490) = \text{Y}1,820\text{M} * .0131 = \$23.8\text{M}$$

- b) Calculate GDP using the PPP approach.

$$\text{US: } \$32\text{M}$$

$$\text{Japan: } 3\text{M}(\$4) + 2\text{M}(\$6) = \$24\text{M}$$

- c) At what exchange rate (dollars per Yen) would these two methods give the same number?

$$\$24\text{M} = \text{Y}1,820 * e$$

$$e = (24/1820) = .0131 (\$/\text{Y})$$

- 2) Convert the following non-annualized interest rates to annualized rates:

- a) A 180 day treasury bond yields 1.2%

$$(1.012)^2 = 1.024 \text{ (2.4\%)}$$

- b) A 10 year treasury bond yields 18%.

$$(1.18)^{\frac{1}{10}} = 1.017 \text{ (1.7\%)}$$