

## Algebra Essentials and Applications Internet Activity

### ME1 Import Export Investigations

1. Record numbers for exports and imports to East Asia in the table below. For convenience, record the numbers in billions of dollars and round to the nearest 0.01 billion. So \$6,822,527,000 becomes 6.82.

	1992	1993	1994	1995	1996	1997	1998
Exports	7.39						
Imports	12.00						

2. The *average rate of change per year* over the period is given by the formula:

$$\text{average rate of change per year} = \frac{\text{change in values}}{\text{change in years}}$$

What is the change in export values between 1992 and 1998? What is the change in years between 1992 and 1998? What is the average rate of change per year of exports from 1992 to 1998?

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3. What is the average rate of change per year of imports from 1992 to 1998?

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4. Based on these answers, when do you think the number of exports will be equal to the number of imports?

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5. The *rate of change per year* of export sales is found similarly. But since the difference in years = 1, the rate of change per year is just the difference in values from one year to the next. Find the rate of change in export sales of semiconductors for the years 1992 to 1993, 1993 to 1994, etc.

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6. For what period did exports grow at the greatest rate? For what period did exports grow at the smallest rate?

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7. Now do the same thing for the import figures: find the rate of change in imports by finding the difference in values from one year to the next for the years 1992 to 1993, 1993 to 1994, etc.

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8. For what period did imports grow at the greatest rate? For what period did exports grow at the smallest rate?

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