

## Skills Worksheet

**Critical Thinking****ANALOGIES**

Mark the letter of the pair of terms that best completes the analogy shown.

An analogy is a relationship between two pairs of words or phrases written as  $a : b :: c : d$ . The symbol  $:$  is read "is to," and the symbol  $::$  is read "as."

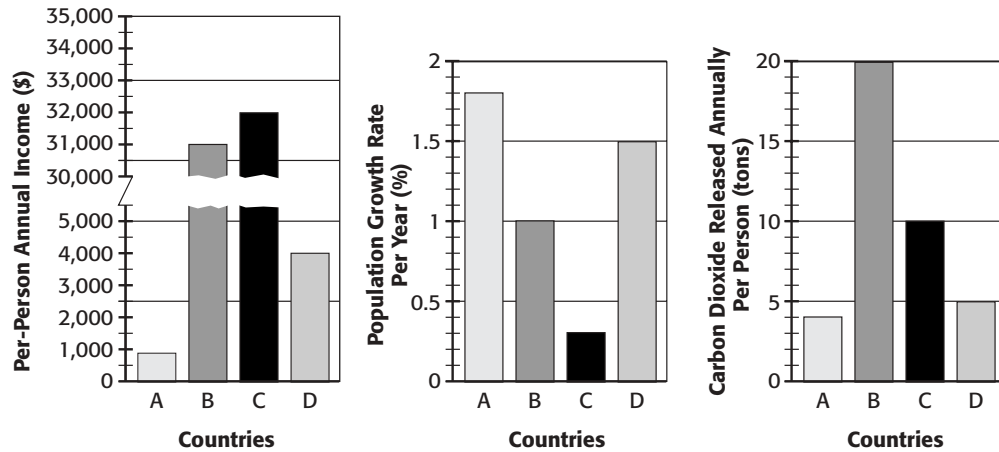
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| <p>_____ 1. Industrial Revolution :<br/>Agricultural Revolution ::<br/><b>a.</b> animal muscle : fossil fuels<br/><b>b.</b> hunters : gatherers<br/><b>c.</b> agricultural revolution : hunter-gatherers<br/><b>d.</b> hunter-gatherers : population growth</p> <p>_____ 2. pollution : health effects ::<br/><b>a.</b> industrial : revolution<br/><b>b.</b> cyanide : smog<br/><b>c.</b> extinction : biodiversity<br/><b>d.</b> automobiles : exhaust</p> <p>_____ 3. environmental science : biology ::<br/><b>a.</b> botany : zoology<br/><b>b.</b> biology : zoology<br/><b>c.</b> zoology : geology<br/><b>d.</b> social sciences : chemistry</p> <p>_____ 4. renewable resource : nonrenewable resource ::<br/><b>a.</b> iron : water<br/><b>b.</b> trees : sunlight<br/><b>c.</b> water : trees<br/><b>d.</b> trees : oil</p> | <p>_____ 5. ecological footprint : land ::<br/><b>a.</b> developed nation : consumption<br/><b>b.</b> developing nation : consumption<br/><b>c.</b> grazing : forest products<br/><b>d.</b> land : ocean</p> <p>_____ 6. supply : demand ::<br/><b>a.</b> overpopulation : resources<br/><b>b.</b> renewable : nonrenewable<br/><b>c.</b> computer production : sales of computers<br/><b>d.</b> population : consumption</p> <p>_____ 7. commons : overgrazing ::<br/><b>a.</b> Earth : resources<br/><b>b.</b> short-term interests : long-term interests<br/><b>c.</b> individual lands : sustainability<br/><b>d.</b> individuals : society</p> <p>_____ 8. biodegradable : nonbiodegradable ::<br/><b>a.</b> pollutant : toxin<br/><b>b.</b> plastic : newspaper<br/><b>c.</b> cotton : polyester<br/><b>d.</b> mercury : lead</p> |
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**Critical Thinking** *continued***INTERPRETING OBSERVATIONS**

**Read the following scenario, and answer the questions that follow.**

Four students are given the assignment of classifying countries as developing or developed. Each student gathers the following information for one nation: per-person annual income, population growth rate, and tons of carbon dioxide produced by fossil fuels. The students compile their results in bar graphs.

**Figure 1**



9. Which country or countries would you classify as developing? Describe your reasoning.

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10. Which country or countries are likely to have the highest rates of energy consumption? Explain your answer.

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11. Which country is most likely the United States? How can you tell?

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**Critical Thinking** *continued*

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**AGREE OR DISAGREE**

**Agree or disagree with the following statements, and support your answers.**

- 12.** Because large-scale species extinctions have occurred throughout Earth's history, we should not be concerned by the world's current high extinction rate.

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- 13.** Growing populations do not create social or environmental problems in areas where food resources are not limited.

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- 14.** Most people from developing countries have values and priorities very different from those of most people from developed countries.

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**Critical Thinking** *continued*

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**REFINING CONCEPTS**

**The statements below challenge you to refine your understanding of concepts covered in the chapter. Think carefully, and answer the questions that follow.**

- 15.** The “ecological footprint” of a citizen of a developed nation is about four times larger than that of a citizen of a developing nation. Why do you think this is the case?

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- 16.** If you could travel in time to a period before the Industrial Revolution, what actions would you initiate to minimize current environmental problems?

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- 17.** Solutions to complex environmental problems can be very costly. Communities or other affected groups might perform a cost-benefit analysis to determine whether the benefits of the desired solutions outweigh the financial cost. How might the results of a cost-benefit analysis be interpreted differently by a local citizen, a company CEO, and a city manager who monitors city funds while overseeing major improvement projects?

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**Critical Thinking** *continued*

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- 18.** If Earth is considered a “closed system,” how does that shape the outcome of environmental problems? How does this relate to local or regional environmental problems?

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- 19.** Identify a controversial environmental issue in your community that fits into one of the following three major categories: resource depletion, pollution, or loss of biodiversity. Discuss how the issue is being addressed, and whether or not the conflicts associated with “The Tragedy of the Commons” are affecting solutions to the problems.

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