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Power Up: Science ACT Prep, Week 5

Trends in Graphs and Tables

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Essential Questions

How can I increase my ACT score?

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Learning Objectives

- Analyze tables and graphs to understand trends
- Evaluate data to answer a question
- Build testing stamina to power through the test

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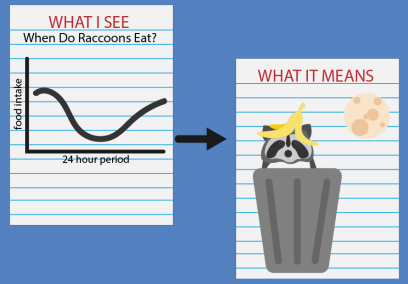
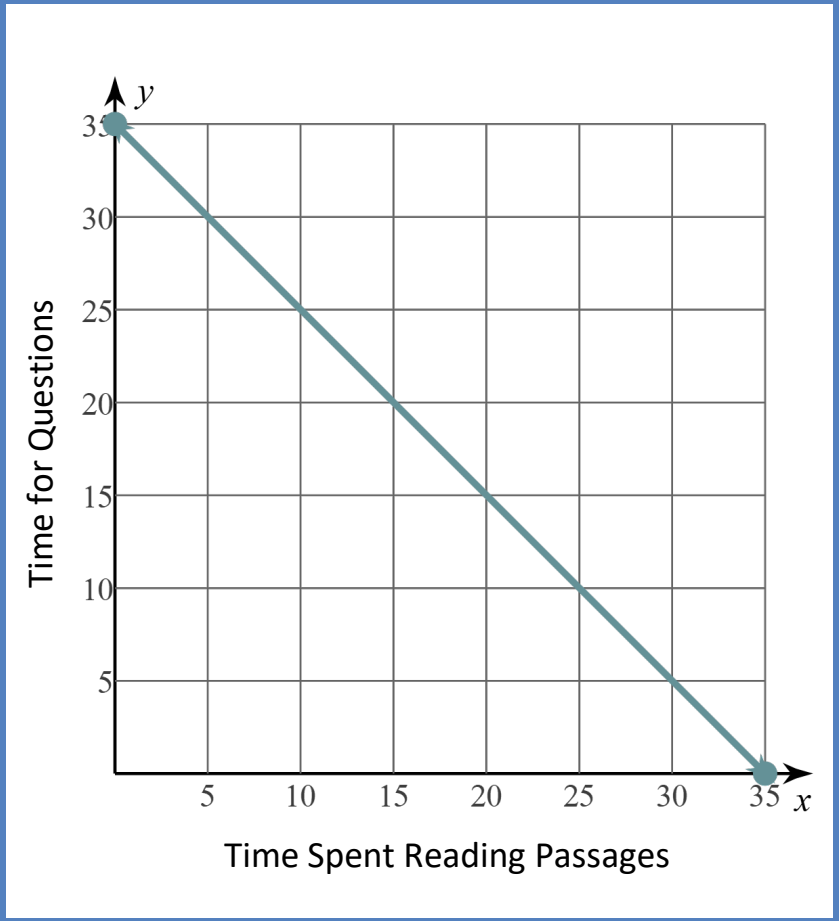
WIS-WIM

What I See

What It Means





Science Section Instructions

35 minutes—40 questions

There are several passages in this test. Each passage is followed by several questions. After reading a passage, using the scroll bar to see the entire passage, choose the best answer to each question, and select the circle next to your answer. You may refer to the passages as often as necessary.

You are NOT permitted to use a calculator on this test.

What's Trending? Key

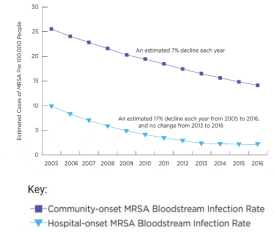
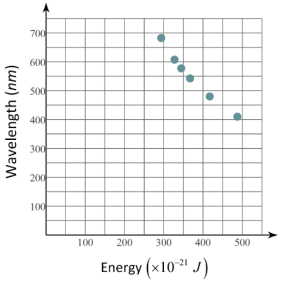
Graph or Table	Notes
Figure 1. Estimated Cases of MRSA By Year 	Negative. As energy increases, wavelength decreases.
Table 1. Catfish Sizes Average mass and length of Giant catfish at different sites along the Mekong River Location / Length (cm) / Mass (kg) Site A / 75 / 90 Site B / 200 / 250 Site C / 120 / 150 Site D / 155 / 200	Negative, same trends. As the year increases, cases decrease. Community trend is higher than the hospital trend.
Figure 2. Properties of Light 	Positive. As length gets bigger, mass gets bigger, true for all sites. Site D has the largest.

Figure 1. Cases of MRSA = Negative, same trends.

Table 1. Catfish Sizes = Positive

Figure 2. Properties of light = Negative

Time to Practice

- Today you'll have 5 minutes to answer 5 questions.
- You may begin when the timer starts.

5-Minute Timer

Question 1

Based on Figure 1, what is the difference between the study that accounted for water purity and the study that did not at 15 degrees Celsius?

A. 0.05
B. -0.09 
C. -0.20
D. -0.35

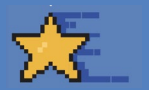
Question 2

According to Table 1 and Figure 1, what is the maximum melting point for a H2O-NaCl solution?

A. 9.08°C
B. 14.87°C
C. 19.38°C
D. 21.9°C 

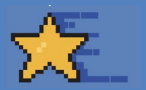
Question 3

Which substance is considered the solvent in the solution for this experiment?

A. salt
B. water 
C. melting point
D. water purity

Question 4

If another study accounted for additional factors that could affect water quality or the quality of the NaCl, the greatest differences in findings would more likely occur at which melting point?

A. 5 °C 
B. 8 °C
C. 15 °C
D. 22 °C

Question 5

The melting point for a solution was 10.2 degrees Celsius. What is a possible salinity for this solution?

A. 4.32
B. 9.07
C. 13.65 
D. 15.76

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