Test Prep: Multiple-Choice Questions

Strategy: Apply Mathematical Reasoning

Name _____ Date _____

When solving problems, it is helpful to **justify your steps** to make sure your process is reasonable and that you do not miss any steps.

To select the correct answer in a multiple-choice item, try using the following strategies.

- Underline important words.
- Restate the question.
- Use the Test-Prep strategy.
- Apply appropriate rules, definitions, properties, or strategies.
- Analyze and eliminate answer choices.

Sample Test Item

Solve: $\frac{x}{3} + 2 \leq -4$

$\frac{x}{3} \leq -6$ ← Subtract 2 from each side.

$x \leq -18$ ← Multiply each side by 3.

A. $x \leq -18$ ← This is the correct choice.

B. $x \geq -18$ ← The inequality symbol was reversed. Eliminate this choice.

C. $x \leq -6$ ← The left side was multiplied by 3. Eliminate this choice.

D. $x \geq -6$ ← The left side was multiplied by 3, and the inequality symbol was reversed. Eliminate this choice.

Choose the correct answer. *TIP: Cross out incorrect answers as you eliminate them.*

1. Which value is in the solution set of $5 - 2x > 7$?

A. -5 **C.** 1

B. 0 **D.** 5

2. What is the quotient of 1.02×10^3 and 2×10^{-4}?

F. 5.1×10^{-12} **H.** 5.1×10^6

G. 5.1×10^{-1} **J.** 5.1×10^7

3. Simplify: $\frac{9x^{-15}}{6x^{-3}} \bullet \frac{4x^2}{3x}$

A. $\frac{2}{x^{11}}$ **C.** $6x^6$

B. $\frac{2}{x^4}$ **D.** $6x^{10}$

4. Solve: $12 - \frac{3}{4}x = 24$

F. $x = -16$ **H.** $x = 9$

G. $x = -9$ **J.** $x = 16$

5. Evaluate: $(8 - 3)^2 - 2|3 - 5|^3$

A. -487 **C.** 41

B. 9 **D.** 537

6. Solve: $|5x - 12| > 18$

F. $-1.2 < x < 6$ **H.** $x < -6$ or $x > 1.2$

G. $-6 < x < 1.2$ **J.** $x < -1.2$ or $x > 6$

7. Solve: $5 - |x + 1| \geq 2$

A. $-4 \leq x \leq 2$ **C.** $x \leq -4$ or $x \geq 2$

B. $-2 \leq x \leq 4$ **D.** $x \leq -2$ or $x \geq 4$

8. Evaluate: $5\sqrt{x^2 - y} + (2y^2 - x)$, for $x = 1$ and $y = -3$.

F. -7 **H.** 27

G. -2 **J.** 45

Use with SOURCEBOOK Test Prep Lesson, page 92.