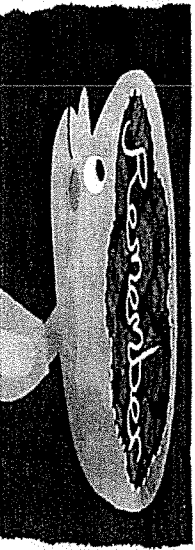


Mathematician: Key

SAT Advice	Monday	Tuesday
 <p>★ 16 of the 58 questions (28%) on the SAT Math test are Passport to Advanced Math ?'s.</p> <p>★ These questions build on the knowledge and skills assessed on Heart of Algebra.</p> <p>★ If you struggle with this category, practice Heart of Algebra on Khan Academy FIRST to brush up on Algebra skills!</p>	<p>If $f(x) = -2x + 5$, what is $f(-3x)$ equal to?</p> <p>a) $-6x - 5$ b) $5x + 5$ c) $6x - 5$ d) $6x^2 - 15x$</p> <p><i>Replace -3x by x</i></p> <p>Show work: $-2(-3x) + 5$ $6x + 5$</p> <p>Correct answer = <u>b</u></p> <p>Choose one of the incorrect answers and tell about the mistake that has been made to get that incorrect answer:</p>	<p>If $f(x) = \frac{x^2 - 6x + 3}{x - 1}$, what is $f(-1)$?</p> <p>a) -5 b) -2 c) 2 d) 5</p> <p><i>replace by (-1)</i></p> <p>Show work: $\frac{(-1)^2 - 6(-1) + 3}{(-1) - 1} = \frac{1 + 6 + 3}{-2} = \frac{10}{-2} = -5$</p> <p>Correct answer = <u>d</u></p> <p>Choose one of the incorrect answers and tell about the mistake that has been made to get that incorrect answer:</p>
<p>The "old" way</p> <p>What is $y = 2x$ at $x = 5$</p> <p>The "new" way using function notation</p> <p>$f(x) = 2x$ $f(5) = ?$</p> <p>In both cases, substitute '5' for 'x' and calculate</p> <p>Solution</p> <p>$y = 2(5)$ $= 10$</p> <p>Solution</p> <p>$f(5) = 2(5)$ $= 10$</p> <p><i>We say that '5' is the input and '10' is the output.</i></p>		