

PSAE - MATHEMATICS

DAY 2

THURSDAY 4/28/11

TEST LENGTH: 45 minutes # OF QUESTIONS: 33 questions

<p>TOPICS TESTED ON THE WORKKEYS TEST</p>	<p>Translate easily from a word problem to a math equation</p>	<p>Solve problems w/single type of mathematics operation using whole numbers Add or subtract negative numbers Change numbers between forms using fractions, decimals, or percentages Convert simple money and time units (e.g., hours to minutes) Solve problems that require one or two operations Multiply negative numbers Calculate averages, simple ratios, simple proportions, or rates Add commonly known fractions, decimals, or percentages Add up to three fractions that share a common denominator Multiply a mixed number by a whole number or decimal Put the information in the right order before performing calculations</p>	<p><u>TIPS & INFORMATION</u></p> <p>YOU MAY USE A CALCULATOR (SEE POLICY BELOW)</p> <p>**WE STRONGLY SUGGEST YOU BRING A CALCULATOR**</p> <p>YOU MAY USE A FORMULA SHEET – IT WILL BE PROVIDED TO YOU</p> <p>ANSWER <u>ALL</u> QUESTIONS!</p> <p>YOU ARE NOT PENALIZED FOR GUESSING</p>
	<p>Problems require several steps of logic and calculation</p>	<p>Decide information, calculations, or conversions to use to solve the problem Look up a formula and perform single-step conversions Calculate using mixed units Divide negative numbers Find the best deal using one- and two-step calculations and comparing results Calculate perimeters and areas of basic shapes (rectangles and circles) Calculate percent discounts or markups</p>	
	<p>Generally require considerable setup and involve multiple-step calculations</p>	<p>Use fractions, negative numbers, ratios, percentages, or mixed numbers Rearrange a formula before solving a problem Use two formulas to change from one unit to another Use two formulas to change units between system of measurement Find the best deal and use the result for another calculation Find areas of basic shapes w/ rearranging the formula & convert units Find the volume of rectangular solids Calculate multiple rates</p>	

	Problems often involve multiple steps of logic and calculation	Solve problems that include nonlinear functions or more than one unknown Convert between systems of measurement Calculate multiple areas and volumes of spheres, cylinders, or cones Set up and manipulate complex ratios or proportions Find the best deal when there are several choices Apply basic statistical concepts	
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Prohibited Calculators

The following types of calculators are prohibited:

- Calculators with built-in computer algebra systems
Prohibited calculators in this category include:
 - Texas Instruments: All model numbers that begin with **TI-89** or **TI-92** and the **TI-Nspire CAS**—Note: The TI-Nspire (non-CAS) is permitted.
 - Hewlett-Packard: **HP 48GII** and all model numbers that begin with **HP 40G**, **HP 49G**, or **HP 50G**
 - Casio: **Algebra fx 2.0**, **ClassPad 300** and **ClassPad 330**, and all model numbers that begin with **CFX-9970G**