

Name _____ Class _____ Date _____

THE NUMBER SYSTEM**Skill Practice and Problem Solving**

<p>1. At 5 A.M. the temperature was -7°C. In the afternoon, the temperature was 4°C. What was the change of temperature during the day?</p>	<p>2. Bryce goes out for a walk. He walks $\frac{9}{8}$ miles from home. He walks back $\frac{1}{2}$ mile before meeting up with his friend Mya. Write and simplify an expression (a sum) that describes this situation.</p>
<p>3. Lena currently has a balance of $-\\$10.48$ in his checking account. Her bank requires her to maintain a minimum balance of $\\$20$. How much does Lena need to deposit into her checking account to reach the minimum balance?</p>	<p>4. Solve.</p> $3\frac{1}{5} - \left(-1\frac{9}{10}\right)$
<p>5. A company's stock lost $\\$3.15$ of its value each day for 5 consecutive days. What was the total change in the stock price?</p>	<p>6. George needs blueberries for a certain recipe. The original recipe calls for $\frac{4}{5}$ cup blueberries. However, George wants to make a recipe that is $3\frac{1}{2}$ times larger. How much blueberries will he need?</p>
<p>7. At a restaurant, one table, with 5 people, has a $\\$19$ bill. Another table, with 6 people, has a $\\$23$ bill. If each group decides to split the cost of the bill equally among the people at the table, which table has the least cost per person?</p>	<p>8. A type of bead weighs about $\frac{3}{16}$ ounce. If a group of these beads weighs $4\frac{1}{8}$ ounces, how many beads are in the group?</p>

RATIOS AND PROPORTIONAL RELATIONSHIPS

Skill Practice and Problem Solving

1. Hailey buys a 10-trip train ticket for \$72.50. Kimberly buys an unlimited weekly pass for \$100 and uses it for 13 trips during the week. Write the unit cost per trip for each person.	2. Chad earns \$234 for 36 hours of work. Geo earns \$288 for 40 hours of work. Are the pay rates of these two people proportional? Explain.
3. Nigel paints $\frac{5}{4}$ square yards in $\frac{1}{3}$ hour. Find the unit rate.	4. The number of customers rose from 118 on Monday to 205 on Tuesday. What is the percent increase to the nearest tenth of a percent?
5. Stacey's bill at a restaurant before tax and tip is \$32.00. If tax is 5.25% and she wants to leave 20% of the bill including the tax for a tip, how much will she spend in total?	6. Calvin earned \$40,500 last year. He paid \$12,555 for rent. What percent of his earnings did Calvin pay for rent?
7. How long will Denise have to leave \$4000 in the bank to earn \$200 in simple interest at 2%?	8. The scale factor for Maria's toy car collection is 1:8. If a toy car in her collection is $7\frac{1}{2}$ inches long, how long is the actual car?

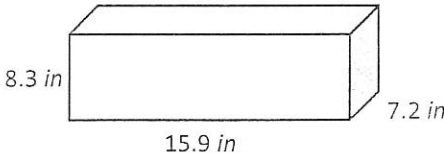
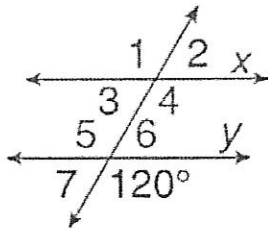
EXPRESSIONS AND EQUATIONS

Skill Practice and Problem Solving

<p>1. What is the perimeter of a triangle with sides the following lengths: $3a + 2c$, $5c + 9$, and $5a - 6$. Simplify the expression.</p>	<p>2. Sam writes down two expression that he believes represents the cost for a jacket that is marked down 30% of the regular price r when the sales tax is 8% of the markdown price. Which expression is correct?</p> <p>expression A $\rightarrow 1.08(r - 0.30r)$ expression B $\rightarrow 1.08r - 0.30r$</p>
<p>3. Mr. Reid is selling 6 identical hub caps and a car wheel for scrap. He knows the wheel weighs 19.5 pounds. He puts all the items on a scale at the scrap yard and the total weight is 86 pounds. Write and solve an equation to find the weight of each hub cap.</p>	<p>4. Solve for x.</p> $\frac{x}{3} - 6.2 = 9$
<p>5. Prestige Middle School is having a carnival. Admission into the carnival is \$2, and each game inside the carnival costs \$1.50. Write and solve an inequality that represents the possible number of games g that can be played with \$20?</p>	<p>6. Randy earns \$14.50 per hour for the first 40 hours worked in a week and \$21.75 per hour for hours over 40. Last week Randy earned \$667. Write and solve an equation to find the time in hours, that Randy worked over 40 hours last week?</p>
<p>7. Solve the inequality. Graph the solution.</p> $-4x + 15 < -21$	<p>8. Kamalah is training for a marathon and wants to run at least $11\frac{7}{8}$ miles. She has already run $1\frac{7}{8}$ miles and starts to jog at a steady rate of $2\frac{1}{2}$ miles per hour. Write an inequality to find the possible amounts of time remaining for her jog.</p>

GEOMETRY

Skill Practice and Problem Solving

<p>1. A frying pan has a diameter of 7 inches. What is the area to the nearest square inch of the smallest cover that will fit on top of the frying pan?</p>	<p>2. A can of carrots is 3 inches in diameter and 4.5 inches tall. What is the area of the label used around the can? Round your answer to the nearest tenth.</p>
<p>3. The window in Michelle's dining room is a semicircle. The straight side of the window is 36 inches. What is the perimeter of the window? Round your answer to the nearest hundredth.</p>	<p>4. A blueprint shows a layout of a building. Every 4 inches in the blueprint represents 7 feet of the actual building. One of the walls on the blueprint is 28 inches long. What is the length of the actual wall?</p>
<p>5. What is the volume of the right rectangular prism shown in the figure?</p> 	<p>6. Line x is parallel to line y. Find the measure of $\angle 1$ and $\angle 6$.</p> 
<p>7. What cross section results when you cut a cylinder perpendicular to its base?</p>	<p>8. The angles below are supplementary. Find the value of x.</p> 