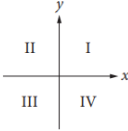
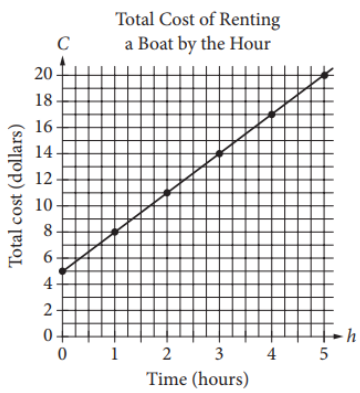


Solutions are available on the website, but try your best before looking at them.

<p>1. If $\frac{x-1}{3} = k$ and $k = 3$, what is the value of x ?</p> <p>A) 2 B) 4 C) 9 D) 10</p>	<p>2. On Saturday afternoon, Armand sent m text messages each hour for 5 hours, and Tyrone sent p text messages each hour for 4 hours. Which of the following represents the total number of messages sent by Armand and Tyrone on Saturday afternoon?</p> <p>A) $9mp$ B) $20mp$ C) $5m + 4p$ D) $4m + 5p$</p>
<p>3. Kathy is a repair technician for a phone company. Each week, she receives a batch of phones that need repairs. The number of phones that she has left to fix at the end of each day can be estimated with the equation $P = 108 - 23d$, where P is the number of phones left and d is the number of days she has worked that week. What is the meaning of the value 108 in this equation?</p> <p>A) Kathy will complete the repairs within 108 days. B) Kathy starts each week with 108 phones to fix. C) Kathy repairs phones at a rate of 108 per hour. D) Kathy repairs phones at a rate of 108 per day.</p>	<p>4. $(x^2y - 3y^2 + 5xy^2) - (-x^2y + 3xy^2 - 3y^2)$</p> <p>Which of the following is equivalent to the expression above?</p> <p>A) $4x^2y^2$ B) $8xy^2 - 6y^2$ C) $2x^2y + 2xy^2$ D) $2x^2y + 8xy^2 - 6y^2$</p>
<p>5. $h = 3a + 28.6$</p> <p>A pediatrician uses the model above to estimate the height h of a boy, in inches, in terms of the boy's age a, in years, between the ages of 2 and 5. Based on the model, what is the estimated increase, in inches, of a boy's height each year?</p> <p>A) 3 B) 5.7 C) 9.5 D) 14.3</p>	<p>6. If $\frac{a}{b} = 2$, what is the value of $\frac{4b}{a}$?</p> <p>A) 0 B) 1 C) 2 D) 4</p>
<p>7. $3x + 4y = -23$ $2y - x = -19$</p> <p>What is the solution (x, y) to the system of equations above?</p> <p>A) $(-5, -2)$ B) $(3, -8)$ C) $(4, -6)$ D) $(9, -6)$</p>	<p>8. $b = 2.35 + 0.25x$ $c = 1.75 + 0.40x$</p> <p>In the equations above, b and c represent the price per pound, in dollars, of beef and chicken, respectively, x weeks after July 1 during last summer. What was the price per pound of beef when it was equal to the price per pound of chicken?</p> <p>A) \$2.60 B) \$2.85 C) \$2.95 D) \$3.35</p>
<p>9. $x + y = -9$ $x + 2y = -25$</p> <p>According to the system of equations above, what is the value of x ? This one is not multiple choice.</p>	<p>10. If $y = kx$, where k is a constant, and $y = 24$ when $x = 6$, what is the value of y when $x = 5$?</p> <p>A) 6 B) 15 C) 20 D) 23</p>

<p>11. A line in the xy-plane passes through the origin and has a slope of $\frac{1}{7}$. Which of the following points lies on the line?</p> <p>A) $(0, 7)$ B) $(1, 7)$ C) $(7, 7)$ D) $(14, 2)$</p>	<p>12. If $(ax + 2)(bx + 7) = 15x^2 + cx + 14$ for all values of x, and $a + b = 8$, what are the two possible values for c ?</p> <p>A) 3 and 5 B) 6 and 35 C) 10 and 21 D) 31 and 41</p>
<p>13. If $16 + 4x$ is 10 more than 14, what is the value of $8x$?</p> <p>A) 2 B) 6 C) 16 D) 80</p>	<p>14. For what value of n is $n - 1 + 1$ equal to 0 ?</p> <p>A) 0 B) 1 C) 2 D) There is no such value of n.</p>
<p>15. Which of the following numbers is NOT a solution of the inequality $3x - 5 \geq 4x - 3$?</p> <p>A) -1 B) -2 C) -3 D) -5</p>	<div style="text-align: center;">  </div> <p>If the system of inequalities $y \geq 2x + 1$ and $y > \frac{1}{2}x - 1$ is graphed in the xy-plane above, which quadrant contains no solutions to the system?</p> <p>A) Quadrant II B) Quadrant III C) Quadrant IV D) There are solutions in all four quadrants.</p>
<p>Use this graph for questions 17 and 18.</p>	
<div style="text-align: center;">  </div> <p>The graph above displays the total cost C, in dollars, of renting a boat for h hours.</p>	<p>17. What does the C-intercept represent in the graph?</p> <p>A) The initial cost of renting the boat B) The total number of boats rented C) The total number of hours the boat is rented D) The increase in cost to rent the boat for each additional hour</p> <p>18. Which of the following represents the relationship between h and C ?</p> <p>A) $C = 5h$ B) $C = \frac{3}{4}h + 5$ C) $C = 3h + 5$ D) $h = 3C$</p>