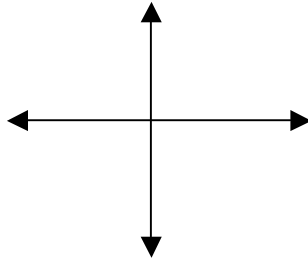


Version A

Directions: To receive partial credit you must show your work on a problem.
Circle final answers. All problems are 5 points each.

Graph the following equation.

1. $y = x^2 - 2x$



Test for symmetry with respect to the x-axis, y-axis, and origin.

3. $y = x^4 - x^2 + 3$

Find the x- and y- intercepts.

2. $y = (x + 2)^2$

Determine if $x = -3$ is a solution to the following equation.

4. $3x^2 + 2x - 5 = 2x^2 - 2$

Solve the equation.

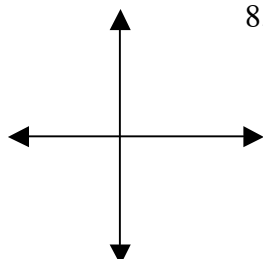
5. $3(x + 3) = 5(1 - x) - 1$

Solve the equation.

6. $\frac{x}{5} - \frac{x}{2} = 3 + \frac{3x}{10}$

Graph the equation.

7. $y = \frac{2}{3}x + 7$



Translate the verbal phrase.

8. The sum of two consecutive even integers.

Solve for r.

9. $A = P + Prt$

10. The length of a rectangular label is 3 cm less than twice the width. The perimeter is 54 cm. Find the width. ($P = 2L + 2W$) **Setup an equation and solve it**

Solve by any method.

11. $(4x + 7)^2 = 44$

Solve by any method.

12. $x^2 + 8x + 14 = 0$

Perform the operation. Write the result in standard form of a complex number.

13. $(8 + \sqrt{-18}) - (4 + 3i\sqrt{2})$

14. $\sqrt{-6} \cdot \sqrt{-2}$

Perform the operation. Write the result in standard form of a complex number.

15. $(1 - 2i)^2 - (1 + 2i)^2$

16. $\frac{6 - 7i}{1 - 2i}$

Divide.

17. $\frac{-14}{2i}$

Solve the equation.

18. $2x^2 = 19x + 33$

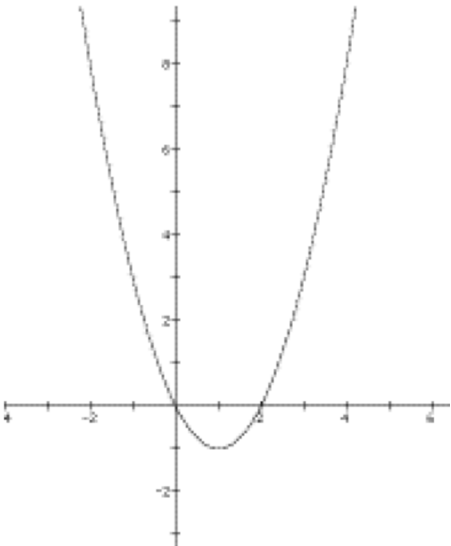
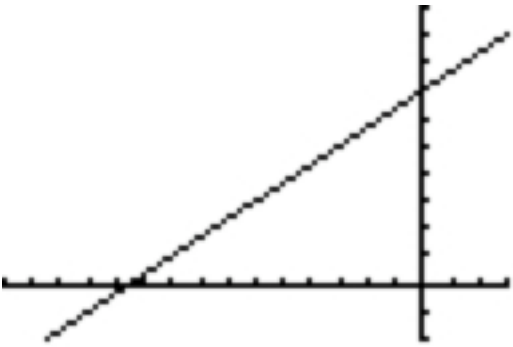
Solve the following inequality. Write the solution set in interval notation. (#19, 20, 21)

19. $3 + \frac{2}{7}x > x - 2$

20. $\left| 1 - \frac{2x}{3} \right| < 1$

21. $x^2 + 2x \leq 3$

Answers to Sample Test 1

<p>1.</p> 	<p>2. x-intercept = $(-2, 0)$, y-intercept = $(0, 4)$</p>
<p>3. x-axis – NO y-axis – YES origin - NO</p>	<p>4. Yes $(16 = 16)$</p>
<p>5. $x = -5/8$</p>	<p>6. $x = -5$</p>
<p>7.</p> 	<p>8. let $x = 1^{\text{st}}$ consecutive even integer then $x + 2 = 2^{\text{nd}}$ consecutive even integer answer: $(x) + (x + 2)$</p>
<p>9. $r = \frac{A - P}{Pt}$</p>	<p>10. Width = 10 cm</p>
<p>11. $x = -\frac{7}{4} \pm \frac{\sqrt{11}}{2}$</p>	<p>12. $x = -4 \pm \sqrt{2}$</p>
<p>13. 4</p>	<p>14. $x = -2\sqrt{3}$</p>
<p>15. $-8i$</p>	<p>16. $4 + i$</p>
<p>17. $7i$</p>	<p>18. $x = -3/2$ $x = 11$</p>
<p>19. $(-\infty, 7)$</p>	<p>20. $(0, 3)$</p>
<p>21. $[-3, 1]$</p>	