Algebra 2
Review Chapter A

Name _____

Solve the equations.

1) $3y - 14 = y + 11$

2) $5(4x - 8) = 9 + 10(2x - 1)$

3) $\frac{1}{3} - \frac{5x}{6} = \frac{3}{2}$

4) $(b + 2) - (4b + 1) = -20$

5) Benny spent $1837 in expenses to operate his car last year. Some of these expenses included insurance ($972), registration ($114) and maintenance ($105). His only other expense was for gas. If Benny drove 7600 miles last year, what was the average cost of gas per mile?

Solve each inequality. Then graph the solution set on a number line.

5) $11 - 5y < -44$

6) $2w \geq \frac{w+15}{3}$

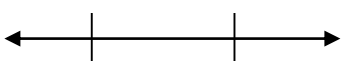
7) $3v - 1 \leq 4 - (2 - 3v)$

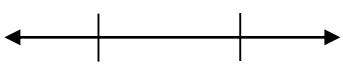
Graph each pair of inequalities on the number line provided using the "above & below" method.

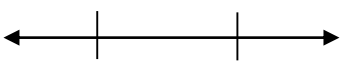
8) $n \geq -6$ or $n > 2$

9) $x < 44$ and $x \geq 33$

10) $y > -9$ and $y < -8$







Solve each compound inequality. Then graph the solution set on a number line. Lastly, write a solution set that represents the shaded area.

11) $-1 \le \frac{1}{3}x + 5 \le 4$

12) 3y + 5 > 20 or y – 7 > 5y + 13

14) -3 < 8 – 2m < 18

Solution set: _____

Solution set: _____

Solution set: _____

15) $\frac{3}{4}x \le -9$ or 3(2x – 7) ≤ 41

16) 5| n – 4 | > 105

Solution set: _____

Solution set: _____

Solution set: _____

17) | 5n + 11 | ≤ 9

18) $\left| \frac{5}{3}a - 13 \right| < -1$

19) $22 \le \left| \frac{1}{2}x + 3 \right|$

Solution set: _____

Solution set: _____

Solution set: _____