Algebra 1

Practice Quiz 5.4-5.6

NAME_____

Solve each compound inequality and then on a number line which is provided on the right. (3 Points)

1. $a - 2 < 10$ and $a + 3 \geq 9$

$+2 \quad +2 \qquad -3 \quad -3$

$a < 12 \qquad a \geq 6$

2. $b + 5 \geq 13$ or $b - 7 \leq -4$

$-5 \quad -5 \qquad +7 \quad +7$

$b \geq 8 \qquad b \leq 3$

3. $2c + 9 \leq 17$ or $4c - 11 > 21$

$-9 \quad -9 \qquad +11 \quad +11$

$\frac{2c}{2} \leq \frac{8}{2} \qquad \frac{4c}{4} > \frac{32}{4}$

$c \leq 4 \qquad c > 8$

4. $3d + 15 > -6$ and $6d - 17 < 7$

$-15 \quad -15 \qquad +17 \quad +17$

$\frac{3c}{3} > \frac{-21}{3} \qquad \frac{6c}{6} < \frac{24}{6}$

$c > -7 \qquad c < 4$

5. $-15 \leq 2f - 9 \leq 11$

$-15 \leq 2f - 9$ and $2f - 9 \leq 11$

$+9 \quad +9 \qquad +9 \quad +9$

$\frac{-24}{2} \leq \frac{2f}{2} \qquad \frac{2f}{2} \leq \frac{20}{2}$

$-12 \leq f \qquad f \leq 10$

$f \geq -12$

6. $4g > 2g + 14$ or $6g < 2g + 12$

$-2g \quad -2g \qquad -2g \quad -2g$

$\frac{2g}{2} > \frac{14}{2} \qquad \frac{4g}{4} < \frac{12}{4}$

$g > 7 \qquad g < 3$

7. $|h - 8| \geq 13$

$h - 8 \geq 13$ or $h - 8 \leq -13$

$+8 \quad +8 \qquad +8 \quad +8$

$h \geq 21 \qquad h \leq -5$

8. $|3j + 12| < 9$

$3j + 12 < 9$ and $3j + 12 > -9$

$-12 \quad -12 \qquad -12 \quad -12$

$\frac{3j}{3} < \frac{-3}{3} \qquad \frac{3j}{3} > \frac{-21}{3}$

$j < -1 \qquad j > -7$

9. $|5k + 10| \leq 15$

$5k + 10 \leq 15$ and $5k + 10 \geq -15$

$-10 \quad -10 \qquad -10 \quad -10$

$\frac{5k}{5} \leq \frac{5}{5} \qquad \frac{5k}{5} \geq \frac{-25}{5}$

$k \leq 1 \qquad k \geq -5$

10. $|2m + 6| > 14$

$2m + 6 > 14$ or $2m + 6 < -14$

$-6 \quad -6 \qquad -6 \quad -6$

$\frac{2m}{2} > \frac{8}{2} \qquad \frac{2m}{2} < \frac{-20}{2}$

$m > 4 \qquad m < -10$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

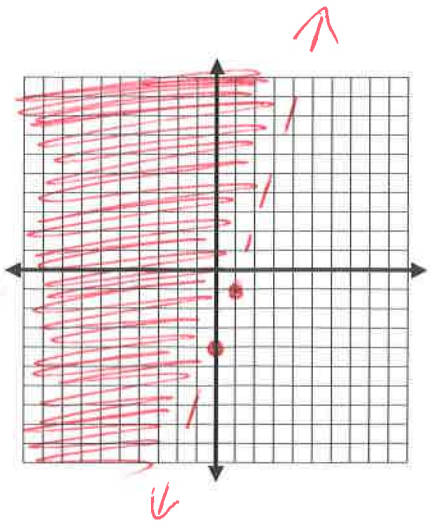
9. _____

10. _____

Points (30)_____

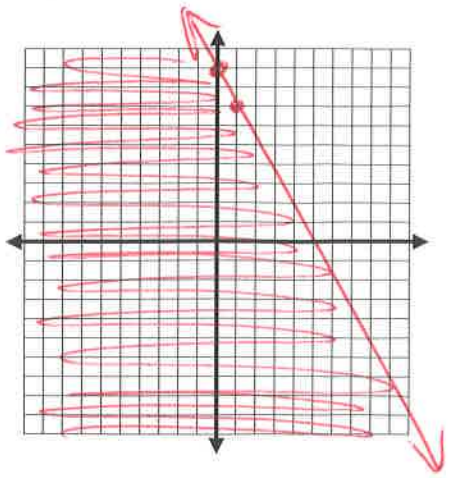
Graph each inequality. (3 Points)

11. $y > 3x - 4$



12. $2x + y \leq 9$

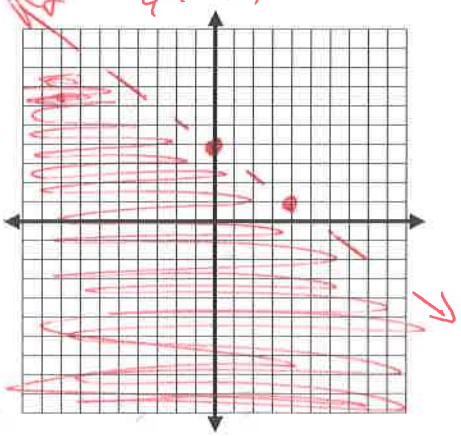
$y \leq -2x + 9$



13. $3x + 4y < 16$

$4y < -3x + 16$

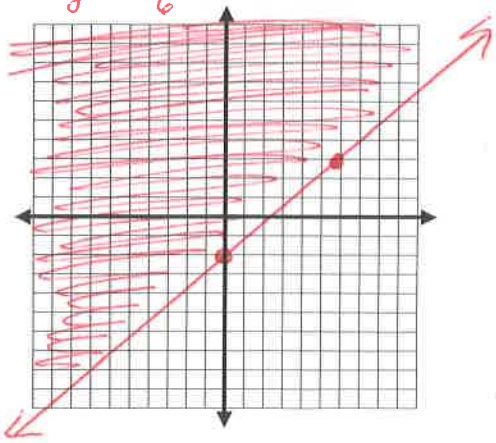
$y < -\frac{3}{4}x + 4$



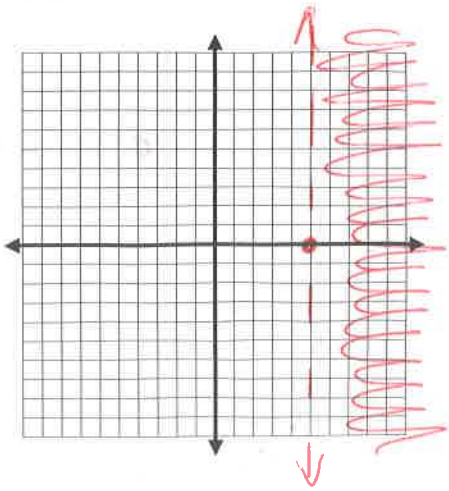
14. $6y - 5x \geq -12$

$6y \geq 5x - 12$

$y \geq \frac{5}{6}x - 2$



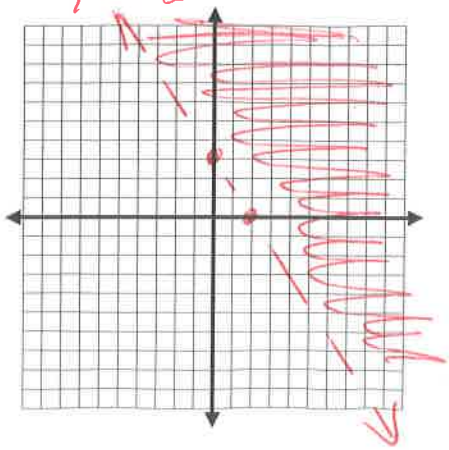
15. $x > 5$



16. $6x + 4y > 12$

$4y > -6x + 12$

$y > -\frac{3}{2}x + 3$



Points (18)_____