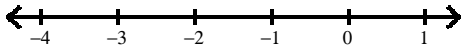
Algebra 2 - Mr. C. Name_____

Practice for Semester 1 Exam - Linear Topics

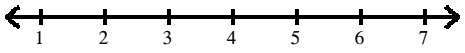
Date_____ Period____

Solve each inequality and graph its solution on a number line.

1) $10 < -r - 4r$



2) $-m - 3 + 5 \geq -3$



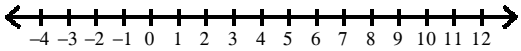
Solve each inequality.

3) $2\left|6r + 6\right| < 60$

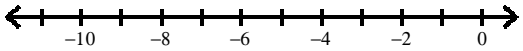
4) $-24 - 3x > 3x - 3(x + 1)$

Solve each compound inequality and graph its solution on a number line.

5) $x + 4 > 13$ or $10x - 4 < -4$



6) $-41 < 6n + 7 < -11$



Write the slope-intercept form of the equation of the line through the given points.

7) through: $(2, 5)$ and $(1, -1)$

8) through: $(1, -4)$ and $(-2, -5)$

Write the slope-intercept form of the equation of the line described.

9) through: $(4, 5)$, perp. to $y = -\frac{2}{5}x + 1$

10) through: $(1, 1)$, parallel to $y = 5x + 1$

Solve each system.

11) $y = x$
$6x - 3y = 24$

12) $7x + 6y = 21$
$y = 5x + 22$

13) $3x - 2y = 6$
$x + 2y = 2$

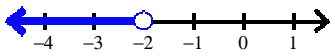
14) $-x - 7y = 17$
$5x + 7y = -1$

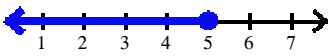
Graph the solution to each system of inequalities.

15) $y \leq 5x - 3$
$y < x + 1$

16) $x + 2y \geq -6$
$3x - 2y > -2$

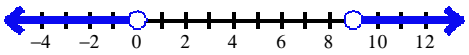
Answers to Practice for Semester 1 Exam - Linear Topics

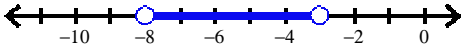
1) $r < -2$: 

2) $m \le 5$: 

3) $-6 < r < 4$

4) $x < -7$

5) $x > 9$ or $x < 0$: 

6) $-8 < n < -3$: 

7) $y = 6x - 7$

8) $y = \frac{1}{3}x - \frac{13}{3}$

9) $y = \frac{5}{2}x - 5$

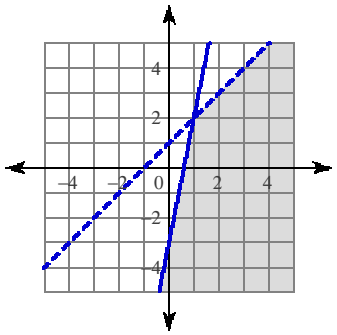
10) $y = 5x - 4$

11) $(8, 8)$

12) $(-3, 7)$

13) $(2, 0)$

14) $(4, -3)$

15) 

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