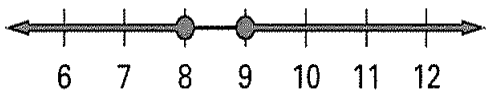
Name_____Date_____Hour_____

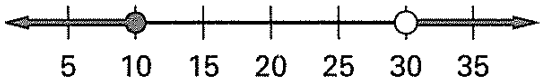
Worksheet 6.3 – Compound Inequalities – Textbook pages 346-352

LEVEL 1 Write an inequality that describes the graph shown below.

1. 

2. 

3.



LEVEL 2 Sketch a graph of the inequalities below.

4) $-3 \leq x \leq 6$

5) $0 < x < 5$

6) $x < -1$ or $x \geq 2$

7) $x < -2$ or $x \geq 2$

LEVEL 3 Solve the following inequalities and graph their solutions. Show your work.

8) $3 < x - 3 \leq 5$

9) $-2 < 4 + x < 4$

10) $2x + 9 > 17$ or $5x + 10 < 10$

11) $1 \leq 3x \leq 6$

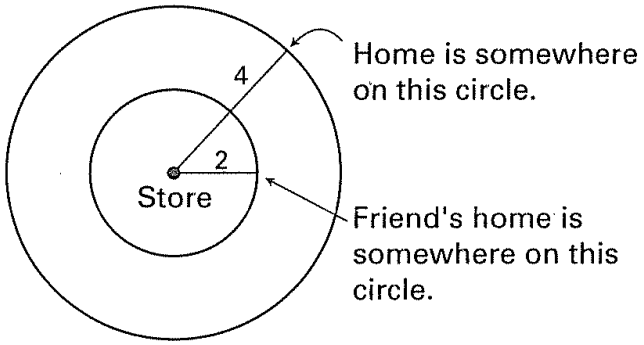
12) $-3 \leq 2x + 1 < 9$

13) $7 < 1 - x < 13$

LEVEL 4

14)

You live 4 miles from the convenience store and your friend lives 2 miles from the same store. (a) Find the minimum distance d between your home and your friend's home. (b) Find the maximum distance d between your home and your friend's home. (c) Write an inequality that describes the possible distances d between your home and your friend's home.



a) _____

b) _____

c) _____