NAME_____DATE_____PER._____

Solving Multi-Step Inequalities

Solve each inequality and graph the solution.

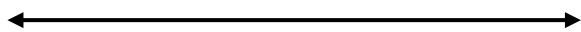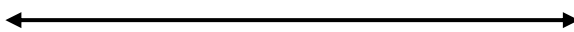|	
1. $x - 3x > 2 - 10$	2. $5 - x - 3 > 3$
3. $3 \leq 2x - 5(x + 3)$	4. $4 - (x - 2) > 3 - 5$
5. $4(x + 3) > -24$	6. $4 \geq x - 3(x + 2)$
7. $12(x - 3) + 2x > 6$	8. $15 > 19 + 2(x - 18)$

Write an inequality and solve.

9. The average of Jim's two test scores must be at least a 90 to make an A in the class. Jim got a 95 on his first test. What grade can Jim get on his second test to make an A in the class?

10. One cell phone company offers a plan that costs $29.99 and includes unlimited nights and weekend minutes. Another phone company offers a plan that costs $19.99 and charges $0.35 per minute during nights and weekends. For what number of night and weekend minutes does the second company's plan cost more than the first company's plan?

Choose the best answer. SHOW ALL WORK!

11. Which statement is modeled by 2p + 5 < 11?

A. The sum of 5 and 2 times a number is at least 11.

B. Five added to the product of 2 and *p* is less than 11.

C. Two times *p* plus 5 is at most 11.

D. The product of 2 and *p* is added to 5 is 11.

12. Which is NOT a solution of the inequality 33 – 3h $\leq$ -18?

A. 17   B. 21   C. 15   D. 45

13. Which is NOT a solution of the inequality -12 $\geq$ -4x – 8?

A. -5   B. 2   C. 7   D. 10

Answers in random order: A, B, C, 29, x<4, x<16, x<8, x$\geq$85, x>3, x<-1, x$\leq$-6, x>-9, x$\geq$-5