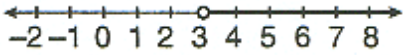
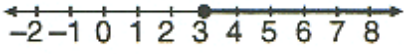
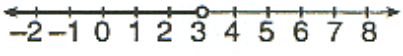
In Class Review: Getting Ready Module

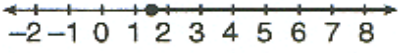
1. Solve $-2(x+4)=8$

2. Which of the following graphs shows the solution to the inequality $3x-2>7$?

a. 

b. 

c. 

d. 

3. The Willis Tower is the tallest building in Chicago. Trump International Hotel is the 2nd tallest at 1362 feet tall. It is 89 feet shorter. Which equation can be used to find the height of the Willis Tower?

   a. $1362+h=89$
   b. $h=1362-89$
   c. $1362=h-89$
   d. $89-h=1362$

4. Four friends want to catch a cab from the airport. They don't want to spend more than $50.00 for their trip. Rico's Cab Company prices are:
   - $3.25 initial fee
   - Add $1 for second passenger
   - Add $0.50 for each additional passenger
   - Add $1.95 per mile

   Which inequality will help to find the number of miles they will be able to go?

   a. $5.25 + 1.95m \geq 50$

   b. $5.25 + 1.95m > 50$

   c. $5.25 + 1.95m \leq 50$

   d. $5.25 + 1.95m < 50$

5. Solve the following equation for x.

   $\frac{1}{3}(18x + 12) = -3x + 40$

6. If $C = 2\pi r$, what is r equal to?

7. Solve for x:

   $4x + 2(x - 3) + 10 = -56$

8. What equation represents a correct first step when solving the equation $2(f - 4) = 28$ for f?

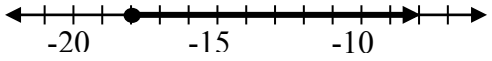
   A. $2f - 4 = 28$
   B. $2f = 28 + 4$
   C. $2f - 8 = 28$
   D. $f - 2 = 28 \div 2$

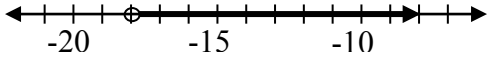
9. Solve the following inequality for t.

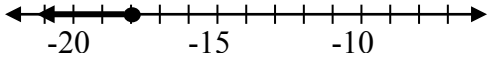
   $4t - 1 \leq -3(3t - 4)$

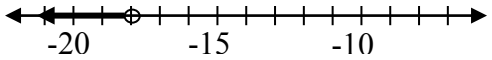
10. Which graph represents the solution of the inequality given below?

$$-y + 15 \geq -3 - 2y$$

a. 

b. 

c. 

d. 

11. Solve the following inequality for x:

$$12 + 5x > 7x - 12$$

12. Solve for x in the following equation:

$$y = mx + b$$

13. Solve the equation.

$$3(x + 2) = 12 - 2(x - 1)$$

14. Charlie solved the following equation using the steps shown below. On the lines provided, give a justification for each step.

$$4(x + 1) = 7x + 2x - 5$$

Step 1: $4x + 4 = 7x + 2x - 5$ _____

Step 2: $4x + 4 = 9x - 5$ _____

Step 3: $-5x + 4 = -5$ _____

Step 4: $-5x = -9$ _____

Step 5: $x = \frac{9}{5}$ _____

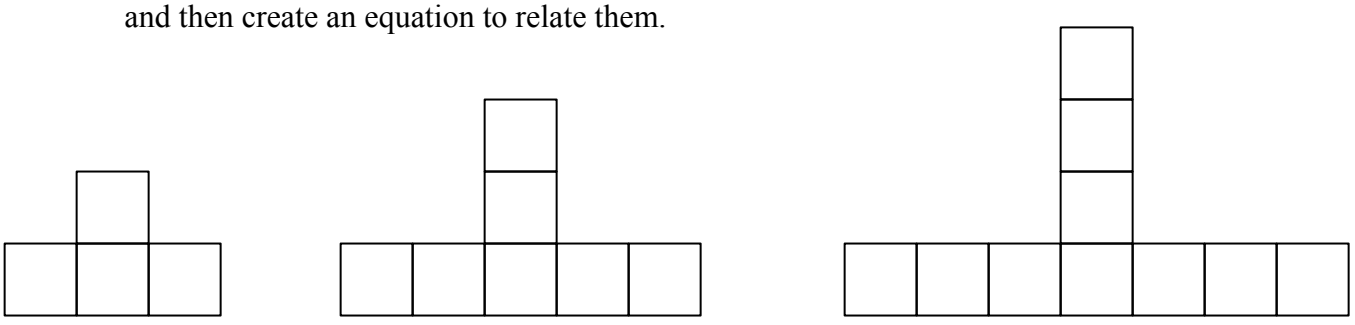
15. The perimeter of a rectangle is given by $P = 2W + 2L$. Solve for W.

16. The service club wants to buy bracelets with the school logo on them. Each bracelet costs \$0 .75. The company also charges \$3.00 for shipping. If the club spends \$13.50 for the purchase, how many bracelets did they buy? Show your work and explain your answer.

17. If $x < y$, is $\frac{x}{a} < \frac{y}{a}$? Explain why or why not.

18. An elevator can safely hold no more than 1000 lbs. If too many people get on the elevator, an alarm goes off to alert the passengers that the elevator is overloaded. If the average person weighs 165 pounds, how many people can enter the elevator without setting off the alarm.

19. Use the visual pattern to make a table relating the step number, *n*, to the number of tiles and then create an equation to relate them.



Step 1 Step 2 Step 3

20. Chris likes to watch movies provided by his satellite tv company. He pays $29.99 per month for cable service and $4.99 for each movie he watches. He has budgeted $100 per month for movies with his cable service.

a. Write an inequality that shows that the amount Chris spends for movies and cable service must not be more than the $100 he has budgeted.

b. Graph the solution to the inequality that you have written.

c. Do all the solutions graphed on your number line make sense in Chris' situation?

d. Is 3 a solution to the inequality? Explain why or why not.