

Name \_\_\_\_\_ Per \_\_\_\_\_

LO: I can solve equations and inequalities. I can write let statements, equations and inequalities for word problems

 **DO NOW** On the back of this packet (1) **Solve for the indicated variable**  
pencil/pen

15.  $P = 2L + 2W$  for  $W$

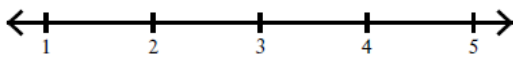
16.  $ax + by = c$  for  $y$

17.  $D = \frac{C - S}{n}$  for  $S$

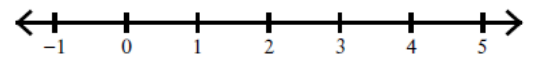
18.  $D = \frac{R(100 - x)}{100}$  for  $R$

 (2) **Solve each inequality and graph on a number line**  
pencil

11)  $a - 15 > -4(-6 + 3a)$



12)  $3(6b - 1) > 18 - 3b$



(3)  
pencil/pen

**Write “Let” statements and equations or inequalities for each problem**

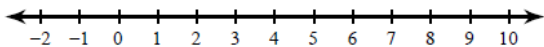
1. John is four years older than Frank, the sum of their ages is 36.
  2. Bob has five times as much money as John and together they have \$60.00.
  3. The second angle is thirty degrees more than the first.
  4. The sum of the interior angles of a triangle is  $180^\circ$ , The second angle of a triangle is  $45^\circ$  more than the first and the third angle is twice the first.
  5. The area of a triangle is half the base times the height.
  6. The perimeter of a rectangle is the sum of twice the length and twice the width.
  7. Ted is four years older than three times Mary’s age.
  8. Mark earns a base salary of \$400 per week plus a 6% commission on all his sales.
  9. The cell phone bill has a base fee of \$30 per month plus twenty cents per minute.
  10. The circumference of a circle is equal to the diameter multiplied by  $\pi$ .
-

---

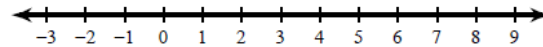
□ (5) **Compound Inequalities**

**Solve and graph the compound inequalities**

3)  $2x < 10$  or  $\frac{x}{2} \geq 3$



4)  $x + 8 \geq 9$  and  $\frac{x}{7} \leq 1$



(6)  
pen or  
pencil

### Homework

Study for the test by reviewing lessons and homework. Also, write "Let" statements and equations or inequalities for each situation below.

(1) Bennett and his friends decide to go bowling. The cost for the group is **\$15** for shoe rentals plus **\$4.00** per game.

(2) The Ace Telephone Co. charges a flat monthly fee of **\$22.00** for a telephone line and **\$0.20** per minute for long distance calls.

(3) The age of father is 20 years more than twice the age of the son. If sum of their ages is 65 years, find the age of the son and the father.

(4) The present age of Jacob's father is three times that of Jacob. After 5 years, the difference of their ages will be 30 years. Find their present ages.