

**Palomar College Math Placement Test Study Guide**  
**Beginning Algebra**

**Topic 3: Linear Equations and Inequalities**

1. Solve:  $\frac{-2}{5}x = 14$
2. Solve:  $8t - 3 = 45$
3. Solve:  $2x - 3 = 4x - 5$
4. Solve:  $-5(2x + 1) = 1 - 4(x + 9)$
5. Solve:  $15 - y - (2y + 3) = 0$
6. If  $\frac{3}{4} + \left(\frac{-1}{2}\right) = x - 1\frac{3}{4}$ , then  $x = ?$
7. Solve:  $\frac{3}{4}x - 6 = x + 5$
8. Solve and graph your solution on the number line:  $-3x < 18$
9. Solve and graph your solution on the number line:  $-2(y - 3) \geq 5y + 13$
10. If a number is multiplied by 5 and then 4 is subtracted, the result is 16. What is the number?
11. Translate the following into an equation:  
The difference between a number,  $x$ , and 4 more than twice the number is 7.

**Answers:**

1.  $x = -35$

2.  $t = 6$

3.  $x = 1$

4.  $x = 5$

5.  $y = 4$

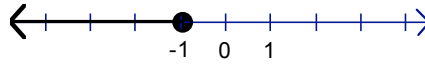
6.  $x = 2$

7.  $x = -44$

8.  $x > -6$



9.  $y \leq -1$



10.  $n = 4$

11.  $x - (2x + 4) = 7$