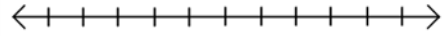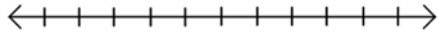Solve each inequality and graph your solution on the number line.
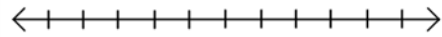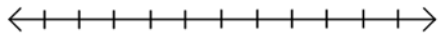
1. $-\frac{2}{5}x \geq -4$

2. $\frac{-x-7}{2} \leq 4$

3. $\frac{2}{3}x - \frac{1}{4} < \frac{1}{3}$
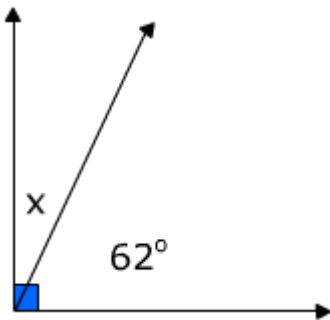
4. $-2(-3x + 5) > 38$

5. Ally is playing a computer game. She already has 943 points and earns 7 points each time she levels up. In order to move on to the next phase, she must score no less than 1580 points. Write an inequality and solve to find out how many times she has to level up before she can move to the next phase.
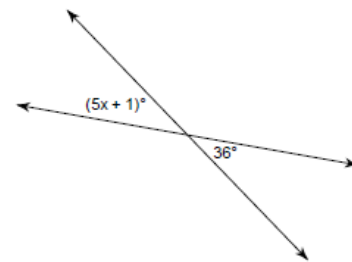
Use an equation to find the value of x.

6.

62°

7.

(5x + 1)°

36°

x= _____

x= _____

8. You are playing a board game with your friend. The pieces for this board game move by landing on a particular color on a spinner. If the colors are red, black, orange, pink, purple, green and blue, what is the theoretical probability of landing on green or blue?

9. A six-sided die is rolled 100 times. The table shows the results.

| Number	Times Rolled
⚀	9
⚁	13
⚂	24
⚃	18
⚄	15
⚅	21

a. What is the **_experimental probability_** of rolling a three?

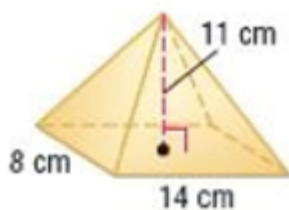b. What is the **_theoretical probability_** of rolling a three?

c. Compare your experimental probability from (a) to your theoretical probability from (b).
Did you get more or less 4's than you expected?
Explain how you know.

10. Find the volume of the figure below.

$$SA = B + \frac{1}{2}Pl$$

11 cm

8 cm

14 cm

$B = $ _____

$P = $ _____

$l = $ _____