Rewrite each of the following equations in $y = mx + b$ form. Show each step!

1) $x + y = -15$

2) $2y + 8x = 1$

3) $-2x + y = 1$

4) $3y - 2x = 9$

5) $2y = -1x - 8$

6) $y - 4 = -3(x - 3)$

Topic: Equations
Lesson 19

Homework (Day 1) MIT/UCLA
Solve:

a) $X + 4 = 14$

b) $X - 4 = 15$

c) $X + 6.57 = 10.8$

d) $X - 11.04 = 24.214$

Bonus: Solve for x:
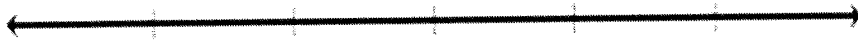
$2x + 2 = 10$

Topic: Inequality

Homework Day 1   *UVA*

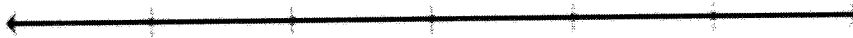Directions: Create an inequality that represents each situation described and graph the solution.

You must be 18 or older to vote!

Inequality: _____

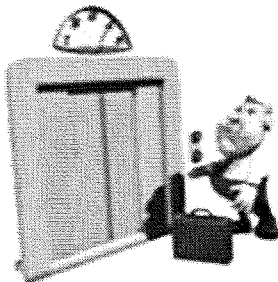<---+----+----+----+----+----+---->

Inequality: _____

You Must Be Taller Than 160 Inches what!!!!!

<---+----+----+----+----+--->

Most elevators can hold a max weight of 2000 pounds!

Inequality: _____

<---+----+----+----+----+---->
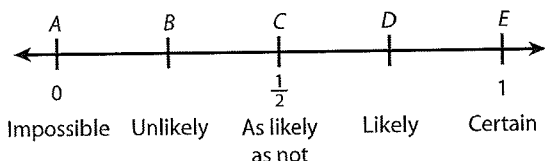
Name: _____

CAM

Understanding Probability

Study the example showing the likelihood of certain events. Then solve problems 1–6.

Example

Sarah's playlist has 4 jazz songs, 10 hip-hop songs, 20 country songs, 6 blues songs, and 0 classical songs. She plays the songs at random on her device.

Find the probability that the next song will be jazz, hip-hop, country, blues, or classical. Then choose the point on the number line that best describes the probability.

```
        A         B         C         D         E
    ←---+---------+---------+---------+---------+--→
        0                  1/2                  1
   Impossible  Unlikely  As likely   Likely   Certain
                         as not
```

You can use the fact that there are 40 songs on Sarah's playlist and the given numbers of songs to find each probability. For example, there are 4 jazz songs and 40 songs, so the probability that a jazz song will play next is $\frac{1}{10}$, which makes it unlikely that a jazz song plays next.

Style of Music	Probability	Point
Jazz	unlikely	B
Hip-hop	unlikely	B
Country	as likely as not	C
Blues	unlikely	B
Classical	impossible	A

1 Why is it as likely as not that a country song will play next?

_____

2 Why is it impossible that a classical song will play next?

_____

3 Why is it unlikely that a hip-hop song will play next?

_____

Vocabulary

probability the chance of an outcome or event occuring.

outcome one of the possible results in a situation or experiment.

Solve.

4 A baseball coach draws names to decide who will be the first player at bat. There are 5 girls and 10 boys on the team. Describe and explain the probability of each outcome.

   a. The first batter is a girl.

   _____

   b. The first batter is a boy.

   _____

5 A gym teacher has a box of tennis balls; 3 balls are green, 2 are red, and 4 are yellow. If you choose a ball without looking, which outcome is more likely, A or B? Complete the table.

Outcome A	Outcome B	More Likely (A or B)	Explanation
yellow ball	red ball		
green or red ball	yellow or red ball		
red or blue ball	purple ball		

6 Each student in your class tosses a coin. The result of each toss is either heads or tails.

   a. Describe the probability that you get heads when you toss the coin. Explain.

   _____

   b. What part of the class would you expect to get heads? Explain.

   _____

   _____

   c. What is the probability that everyone gets heads?

   _____

   _____