Algebra 1 Wk 5 Friday   W-up:

Skill 1:

Solve completely, showing all steps.

1. $2(x+3)=12-(4x-2)$

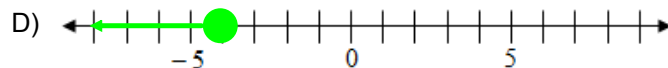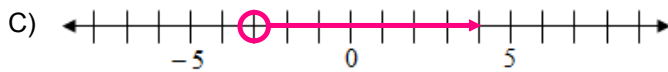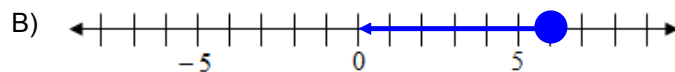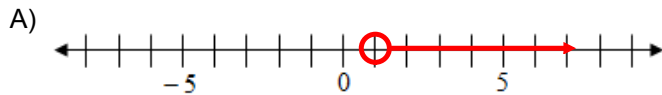Skill 2:

Write a proportion and solve

2. Last season the girl's volleyball team has made 924 kills in 64 games. How many kills should we expect to see in the next 7 games?

3. Is the given number a solution to $2x+1>-3$?   Show your work

   A) -3   B) -1

4. Write an inequality to represent each line graph: (like x>2)

   A)

   B)

   C)

   D)

1. **What is the inequality that represents the verbal expression?** notes

   a. all real numbers *p* greater than or equal to 1.5

   b. The sum of *t* and 7 is less than -3

   c. The quotient of *k* and 11 is greater than or equal to -4

2. **Which of the following numbers are a solution to** $2x+1>-3$ **?**
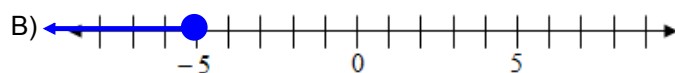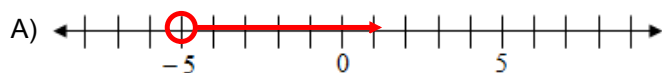
   a. -3   b. -1   c. 0   d. -2

3. **Define a variable and write an inequality to model each situation.**

   a. A school classroom can hold at most 42 students.

   b. You know that you have at least $225 in you bank account.

   c. You need bricks to complete a project at your home. You must spend under $150 and the bricks cost $2 each.

4. Match each inequality with its graph

   $i)\ x < -5$ $ii)\ x > -5$ $iii)\ x \le -5$ $iv)\ x \ge -5$

   A)

   B)

   C)

   D)
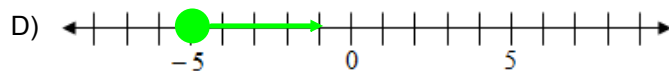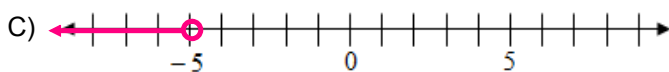
5. Write an verbal expression in your own words that goes with the following inequality: $x \le 15$

A1 w5d4 3-1 Inequalities & Graphs.notebook

Write an inequality that represents each verbal expression.   ◀ **See Problem 1.**

10. 3 less than g is less than or equal to 17.   **11.** The quotient of k and 9 is greater than $\frac{1}{3}$.

Determine whether each number is a solution of the given inequality.   ◀ **See Problem 2.**

13. $8m - 6 \leq 10$ **a.** 2   **b.** 3   **c.** -1

Match each inequality with its graph.   ◀ **See Problem 3.**

17. $x < -1$ **18.** $x \geq -1$ **19.** $-1 < x$ **20.** $-1 \geq x$

A.

C.

B.

D.
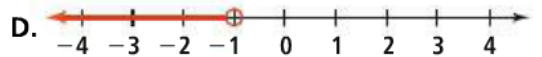
Write an inequality for each graph.   ◀ **See Problem 4.**
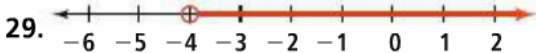
29.

30.

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Write an inequality for each graph.

29.

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←—+——+——⊕——+——+——+——+——+——→
  -6  -5  -4  -3  -2  -1   0   1   2
```

30.

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←—+——+——+——+——+——+——●——+——+——→
   -4  -2   0   2   4   6   8  10  12
```

Define a variable and write an inequality to model each situation.

35. The restaurant can seat at most 172 people.

37. A light bulb can be no more than 75 watts to be safely used in this light fixture.

39. A law clerk has earned more than $20,000 since being hired.

40. Error Analysis A student claims that the inequality $3x + 1 > 0$ is always true because multiplying a number by 3 and then adding 1 to the result always produces a number greater than 0. Explain the student's error.