Algebra I Review   Unit 5   page 1 _____

Solve each of the following equations. Show your steps neatly organized. Express your answers in lowest terms. Do not change improper fractions to mixed numbers.

1. $6x - 7 = 3$ **2.** $5x + 6 = 10$ **3.** $8x - 5 = -1$

4. $-4x + 5 = 7$ **5.** $12x - 1 = -16$ **6.** $-3x + 11 = 7$

7. $2x - 13 = -4$ **8.** $-9x + 10 = -11$ **9.** $15x - 8 = 2$

Solve each of the following equations. Show your steps neatly organized.

10. $|\, 2x + 3\, | = 7$ **11.** $|\, 4x - 10\, | = 6$ **12.** $|\, 6x + 7\, | = 5$

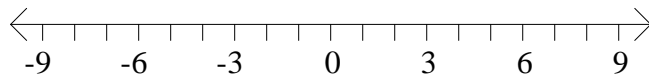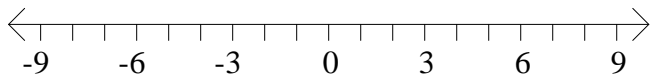**13.** $|\, 3x - 5\, | = 4$ **14.** $|\, 7x + 3\, | = 9$ **15.** $|\, 8x - 11\, | = 9$

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Solve for x. Graph the solution sets on the number lines provided. Show your process neatly organized.
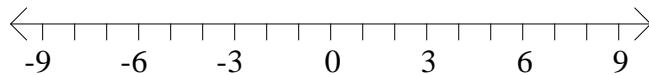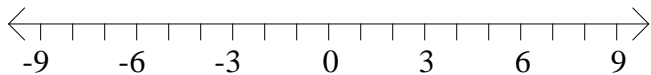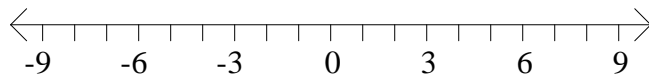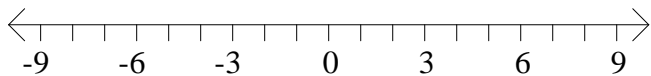
16. $|x| < 6$

17. $|x| \geq 3$

```
←|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――→
  -9      -6      -3       0       3       6       9
```

```
←|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――→
  -9      -6      -3       0       3       6       9
```

18. $|x - 2| \leq 5$

19. $|x + 3| > 4$

```
←|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――→
  -9      -6      -3       0       3       6       9
```

```
←|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――→
  -9      -6      -3       0       3       6       9
```

20. $|4x + 6| < 18$

21. $|6x - 9| \geq 21$

```
←|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――→
  -9      -6      -3       0       3       6       9
```

```
←|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――→
  -9      -6      -3       0       3       6       9
```

22. $|-8x - 7| \leq 13$

23. $|10x + 17| > 13$

```
←|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――→
  -9      -6      -3       0       3       6       9
```

```
←|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――|――→
  -9      -6      -3       0       3       6       9
```