

MAT090 - Practice Exam 2 – F11 – v1

1.
 - a. Parenthesis – Distributive Property
 - b. Fractions – Multiply by the LCD
 - c. Like Terms – Same side of the = sign
 - d. Addition Property – Add the opposite to both sides
 - e. Multiplication Property – Multiply by the reciprocal
 - f. The step that is different for inequalities is when Multiplying or Dividing by a negative number flip or reverse the inequality.

2. -3

3. 6

4. $-\frac{15}{2}$

5. -3

6. 8

7. $\frac{17}{10}$

8. $-\frac{17}{8}$

9. $-\frac{13}{9}$

10. $5 - 2x = 1 : \{2\}$

11. $3(4x - 7) = 15 : \{3\}$

12. $3x - 7 = 2(x + 2) + 2 : \{13,15\}$

13. $3(x + 2) = x + (x + 4) + 1 : \{-1,1,3\}$

14. $3x = 2(20 - x)$ or $3(20 - x) = 2x : \{8,12\}$

15. $2x - (14 - x) = 1$ or $2(14 - x) - x = 1 : \{5,9\}$

16. $46 = x + (3x + 2) + (3x + 2) : \{6\text{ft}, 20\text{ft}, 20\text{ft}\}$

17. $2x = (12 - x) - 3$ or $2(12 - x) = x - 3 : \{3\text{ft}, 9\text{ft}\}$

18. Olive Oil = 2 cups, Vinegar = 8 cups

19. 5 lbs horse manure

20. 12 pm

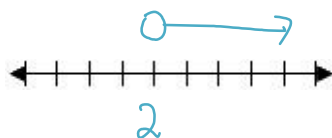
21. 9 pm

22. 175 Beers, 75 Hamburgers

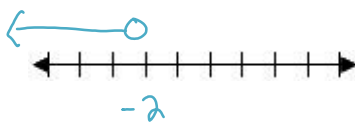
23. $\bullet, [, \leq \geq$

24. $\circ, (, < >$

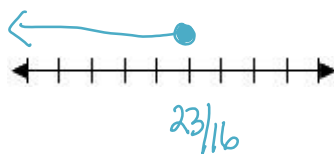
25. $(2, \infty)$



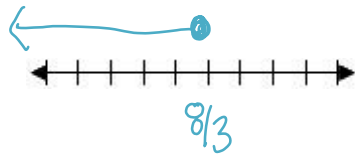
26. $(-\infty, -2)$



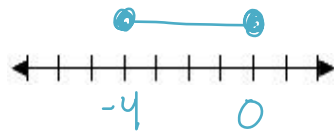
27. $(-\infty, \frac{23}{16}]$



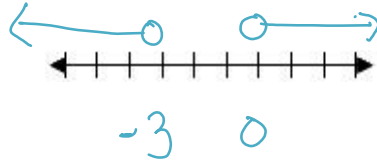
28. $(-\infty, \frac{8}{3}]$



29. $[-4, 0]$



30. $(-\infty, -3) \cup (0, \infty)$

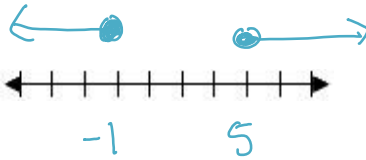


31. $\frac{3}{2}$

32. $\{-3, 7\}$

33. No solution or $\{\}$ or \emptyset

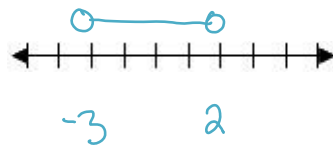
34. $\{-\frac{3}{2}, 3\}$



35. $\{x \mid x \leq -1 \text{ or } 5 \leq x\}$



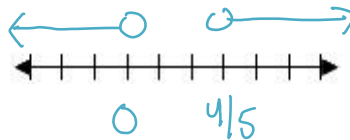
36. $\{x \mid -3 < x < 2\}$



37. No solution or $\{\}$ or \emptyset

38. All Real Numbers, $\{R\}$

39. $\{x \mid x < 0 \text{ or } \frac{4}{5} < x\}$



40. $\{x \mid -\frac{5}{2} \leq x \leq 5\}$

