Section 1.5 – Chapter Summary
Problem Set 2

Translate the following statements to a mathematical expression and simplify them.

1. the quotient of twelve and six

2. ten divided by five added to seven

3. the product of seven and fourteen

4. the difference of eighteen and seven

5. the sum of nine and five with the total multiplied by negative one

Convert each mathematical expression to an English statement.

6. $4(3+4)$

7. $6-2$

8. $5+1$

9. $4+5+1 \cdot \text{-}3$

10. $\dfrac{4-1}{4}$

11. $\dfrac{2+5}{4}-3$

Simplify the following expressions.

12. 5^2

13. $3 \cdot 2^3$

14. 4^2

15. $\left(-\dfrac{5}{3}\right)^4$

16. $\text{-}4^3$

17. $\text{-}2(4-2 \cdot 3)$

18. $2 \cdot 1 - 1$

19. $33 - 4/2 + 1$

20. $\dfrac{1^2-4^2}{3^2-2^2}$

Put one of = or ≠ in the blanks.

21. $3-4$ _____ $3+4$

22. $5-2$ _____ $4+2 \cdot 2$

23. 5 _____ 5

24. $4 \cdot 2.2$ _____ $\text{-}2.2 \cdot \text{-}4$

25. $7+1$ _____ $7-1$

26. $\dfrac{5+9}{7}$ _____ $5+2 \cdot 3$

Draw a number line and graph the following numbers on it.

27. -4

28. 2

29. 3

30. -1.5

31. If you start at 2 then go five units to the right and two units to the left, what number are you on?

32. If you start at 0, go four units to the left, five more units to the left and three units back to the right, where are you?

Place one of >, < or = in each of the blanks.

33. -3.1 _____ -3.0

34. -4 _____ 2

35. 0 _____ 2

36. $\dfrac{1}{5}$ _____ $\dfrac{4}{5}$

37. $\dfrac{3}{7}$ _____ $\dfrac{-1}{7}$

38. 12 _____ 18

Classify each of the following as true or false.

39. $(3 + 1) \leq 3 - 2$

40. $\dfrac{1}{3} + \dfrac{1}{6} > \dfrac{5}{12}$

41. $7 + 2 \cdot 5 \leq 2 \cdot 5$

42. $6 - 4 < 6 - 1$

43. $-3 \geq -4.1$

44. $2(3 - 1) > 6(-1 + 1)$