

Section 1.5 – Chapter Summary

Problem Set 1

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

1. the product of twelve and eighteen
2. the sum of nine and four
3. twelve divided by three added to eight
4. the difference of twelve and nine
5. the quotient of fourteen and seven

Convert each mathematical expression to an English statement.

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|-------------------------|--------------------|-------------------------|
| 6. $12 - 4$ | 7. $8 + 3$ | 8. $\frac{6-2}{2}$ |
| 9. $29 - 7 - 2 \cdot 4$ | 10. $3(4 + 3) - 1$ | 11. $\frac{6-2}{4} + 4$ |

Simplify the following expressions.

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|-------------------------------|---------------------------------------|---------------------------|
| 12. 4^2 | 13. 5^3 | 14. $3 \cdot 4 - 1$ |
| 15. $(-3)^4$ | 16. -3^2 | 17. $\frac{5^2 - 2^2}{3}$ |
| 18. $4^2(3^2 + 2 \cdot (-2))$ | 19. $\left(-\frac{1}{5}\right)^2 + 2$ | 20. $3^2 + 12 / 3 - 1$ |

Put one of = or \neq in the blanks.

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|---------------------------------|--|--|
| 21. $3 - 4$ _____ $1 \cdot 3$ | 22. $7 + 1$ _____ -3 | 23. $\frac{10+2}{6}$ _____ $4 \cdot 1 - 2$ |
| 24. $6.1 - .2$ _____ $3.1 + .6$ | 25. $4 \cdot (-3)$ _____ $-3.1 \cdot -5$ | 26. $6 - 2$ _____ $2 - 7$ |

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

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|-------|--------|----------|-------|
| 27. 4 | 28. -2 | 29. -3.5 | 30. 3 |
|-------|--------|----------|-------|
31. If you start at -2, go four units to the right, two units to the left and three more units to the right, where are you?
32. If you start at 3 then go two units to the left and five units to the right, what number are you on?

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

33. -4 _____ 2

34. 2.2 _____ 2.1

35. $\frac{4}{5}$ _____ $\frac{1}{5}$

36. $\frac{3}{2}$ _____ $\frac{2}{3}$

37. -2.8 _____ -4

38. -12 _____ -11

Classify each of the following as true or false.

39. $-3.8 \geq -3.1$

40. $5 \leq 3$

41. $1 + 4 > 4 + 1$

42. $2(10 - 3) \leq -2 + 2$

43. $\frac{1}{5} + 1 \leq \frac{1}{5}$

44. $-2.3 > -2.2$