

SECTION 1.1

1a. Integers: 0, -3 **b.** Rational numbers: $-\frac{15}{2}$, 0, -3, $2.\overline{33}$ **c.** Irrational numbers: π , 4.232232223..., $\frac{\sqrt{5}}{4}$, $\sqrt{7}$

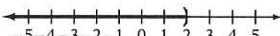
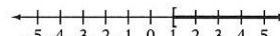
d. Real numbers: all **3.** -27 **5.** $-\frac{3}{4}$ **7.** 0 **9.** $\sqrt{33}$ **11.** 91 **13.** -3, 0 **15.** 7 **17.** -2, -1

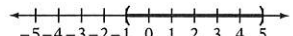
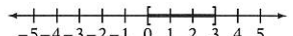
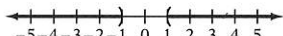
19. 9, 0, -9 **21.** 4, 0, 4 **23.** -6, -2, 0, -1, -4 **25.** {-2, -1, 0, 1, 2, 3, 4} **27.** {2, 4, 6, 8, 10, 12}

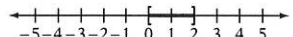
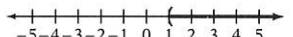
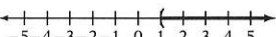
29. {3, 6, 9, 12, 15, 18, 21, 24, 27, 30} **31.** {-35, -30, -25, -20, -15, -10, -5} **33.** $\{x \mid x > 4, x \in \text{integers}\}$

35. $\{x \mid x \geq -2\}$ **37.** $\{x \mid 0 < x < 1\}$ **39.** $\{x \mid 1 \leq x \leq 4\}$ **41.** $A \cup B = \{1, 2, 4, 6, 9\}$ **43.** $A \cup B = \{2, 3, 5, 8, 9, 10\}$

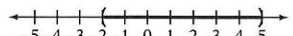
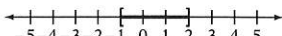
45. $A \cup B = \{-4, -2, 0, 2, 4, 8\}$ **47.** $A \cup B = \{1, 2, 3, 4, 5\}$ **49.** $A \cap B = \{6\}$ **51.** $A \cap B = \{5, 10, 20\}$

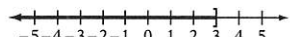
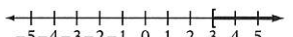
53. $A \cap B = \emptyset$ **55.** $A \cap B = \{4, 6\}$ **57.**  **59.** 

61.  **63.**  **65.** 

67.  **69.**  **71.** 

73. $\{x \mid 0 < x < 8\}$ **75.** $\{x \mid -5 \leq x \leq 7\}$ **77.** $\{x \mid -3 \leq x < 6\}$ **79.** $\{x \mid x \leq 4\}$ **81.** $\{x \mid x > 5\}$ **83.** (-2, 4)

85. [-1, 5] **87.** $(-\infty, 1)$ **89.** [-2, ∞) **91.**  **93.** 

95.  **97.**  **99.** A **101.** B **103.** A **105.** R

107. R **109.** 0