Patterns with Decimals

Write a rule for the sequence. Then find the unknown term.

1. 2.6, 3.92, 5.24, \textbf{6.56}, 7.88
   \textbf{Think:} 2.6 + ? = 3.92; 3.92 + ? = 5.24
   \[2.6 + 1.32 = 3.92\]
   \[3.92 + 1.32 = 5.24\]
   \textbf{Rule:} \textbf{add 1.32}

2. 25.7, 24.1, \textbf{______}, 20.9, 19.3
   \textbf{Rule:} \textbf{______}

3. 14.33, 13.22, 12.11, 11.00, \textbf{______}
   \textbf{Rule:} \textbf{______}

4. 1.75, \textbf{______}, 6.75, 9.25, 11.75
   \textbf{Rule:} \textbf{______}

Write the first four terms of the sequence.

5. \textbf{Rule:} start at 17.3, add 0.9
   \textbf{______} \textbf{______} \textbf{______} \textbf{______}

6. \textbf{Rule:} start at 28.6, subtract 3.1
   \textbf{______} \textbf{______} \textbf{______} \textbf{______}

7. The Ride-It Store rents bicycles. The cost is $8.50 for 1 hour, $13.65 for 2 hours, $18.80 for 3 hours, and $23.95 for 4 hours. If the pattern continues, how much will it cost Nate to rent a bike for 6 hours?
   \textbf{______}

8. Lynne walks dogs every day to earn money. The fees she charges per month are 1 dog, $40; 2 dogs, $37.25 each; 3 dogs, $34.50 each; 4 dogs, $31.75 each. A pet store wants her to walk 8 dogs. If the pattern continues, how much will Lynne charge to walk each of the 8 dogs?
   \textbf{______}
Lesson Check (CC.5.NBT.7)

1. A store has a sale on books. The price is $17.55 for one book, $16.70 each for 2 books, $15.85 each for 3 books, and $15 each for 4 books. If this pattern continues, how much will it cost to buy 7 books?
   - A $14.15 each
   - B $13.30 each
   - C $13.15 each
   - D $12.45 each

2. A bowling alley offers special weekly bowling rates. The weekly rates are 5 games for $15, 6 games for $17.55, 7 games for $20.10, and 8 games for $22.65. If this pattern continues, how much will it cost to bowl 10 games in a week?
   - A $25.20
   - B $27.75
   - C $28.20
   - D $37.95

Spiral Review (CC.5.NBT.5, CC.5.NBT.6, CC.5.NBT.7)

3. Find the product. (Lesson 1.7)
   \[
   \begin{array}{c}
   \times \\
   284 \\
   36
   \end{array}
   \]
   - A 2,556
   - B 7,704
   - C 9,224
   - D 10,224

4. At a sale, a shoe store sold 8 pairs of shoes for a total of $256. Each pair cost the same amount. What was the price of each pair of shoes? (Lesson 2.2)
   - A $22
   - B $32
   - C $248
   - D $2,048

5. Marcie jogged 0.8 mile on Wednesday and 0.9 mile on Thursday. How far did she jog altogether? (Lesson 3.8)
   - A 0.1 mile
   - B 0.17 mile
   - C 1.1 miles
   - D 1.7 miles

6. Bob has 5.5 cups of flour. He uses 3.75 cups of flour. How much flour does Bob have left? (Lesson 3.9)
   - A 2.75 cups
   - B 2.25 cups
   - C 1.75 cups
   - D 1.25 cups