Solve each problem using a tape diagram.

1) A store had 576 sodas, both diet and regular. The ratio of diet sodas to regular sodas was 5:7. How many diet sodas were there?

2) A cable company had 624 subscribers. The ratio of regular subscribers to premium subscribers was 10:2. How many regular subscribers did they have?

3) In August, Haley's Clothing Store sold 540 shirts with the ratio of short sleeve to long sleeve being 3:9. How many short sleeve shirts were sold?

4) During an local election the ratio of teens to adults who voted was 7:2. If 630 people voted how many were teens?

5) Jerry was looking at his streaming music stats. The ratio of songs he liked to disliked was 10:5. If he listened to 1,275 songs total how many did he like?
Solve each problem using a tape diagram.

1) A store had 576 sodas, both diet and regular. The ratio of diet sodas to regular sodas was 5:7. How many diet sodas were there?
   - [Tape diagram]
   - Diet: [ ] [ ] [ ] [ ] [ ]
   - Regular: [ ] [ ] [ ] [ ] [ ] [ ]
   - Total: 576

2) A cable company had 624 subscribers. The ratio of regular subscribers to premium subscribers was 10:2. How many regular subscribers did they have?
   - [Tape diagram]
   - Regular: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
   - Premium: [ ] [ ] [ ]
   - Total: 624

3) In August, Haley's Clothing Store sold 540 shirts with the ratio of short sleeve to long sleeve being 3:9. How many short sleeve shirts were sold?
   - [Tape diagram]
   - Short: [ ] [ ] [ ]
   - Long: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
   - Total: 540

4) During an local election the ratio of teens to adults who voted was 7:2. If 630 people voted how many were teens?
   - [Tape diagram]
   - Teens: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
   - Adults: [ ] [ ] [ ]
   - Total: 630

5) Jerry was looking at his streaming music stats. The ratio of songs he liked to disliked was 10:5. If he listened to 1,275 songs total how many did he like?
   - [Tape diagram]
   - Like: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
   - Dislike: [ ] [ ] [ ]
   - Total: 1,275

**Answers**

1. 240
2. 520
3. 135
4. 490
5. 850