## Unit 6, Lesson 2: Reasoning about Contexts with Tape Diagrams (Part 1)

1. The table shows the number of apples and the total weight of the apples.

| number of apples | weight of apples (grams) |
| :---: | :---: |
| 2 | 511 |
| 5 | 1200 |
| 8 | 2016 |

Estimate the weight of 6 apples.
(from Unit 3, Lesson 1)
2. Select all stories that the tape diagram can represent.

A. There are 87 children and 39 adults at a show. The seating in the theater is split into 4 equal sections.
B. There are 87 first graders in after-care. After 39 students are picked up, the teacher put the remaining students into 4 groups for an activity.
C. Lin buys a pack of 87 pencils. She gives 39 to her teacher and shared the remaining pencils between herself and 3 friends.
D. Andre buys 4 packs of paper clips with 39 paper clips in each. Then he gives 87 paper clips to his teacher.
E. Diego's family spends $\$ 87$ on 4 tickets to the fair and a $\$ 39$ dinner.
3. Andre wants to save $\$ 40$ to buy a gift for his dad. Andre's neighbor will pay him weekly to mow the lawn, but Andre always gives a $\$ 2$ donation to the food bank in weeks when he earns money. Andre calculates that it will take him 5 weeks to earn the money for his dad's gift. He draws a tape diagram to represent the situation.

a. Explain how the parts of the tape diagram represent the story.
b. How much does Andre's neighbor pay him each week to mow the lawn?
4. Without evaluating each expression, determine which value is the greatest. Explain how you know.
a. $7 \frac{5}{6}-9 \frac{3}{4}$
b. $\left(-7 \frac{5}{6}\right)+\left(-9 \frac{3}{4}\right)$
c. $\left(-7 \frac{5}{6}\right) \cdot 9 \frac{3}{4}$
d. $\left(-7 \frac{5}{6}\right) \div\left(-9 \frac{3}{4}\right)$
(from Unit 5, Lesson 13)
5. Solve each equation.
a. $(8.5) \cdot(-3)=a$
b. $(-7)+b=(-11)$
c. $c-(-3)=15$
d. $d \cdot(-4)=32$
(from Unit 5, Lesson 15)

