

Unit 6: More Decimal and Fraction Operations

ADVANCED

Name: _____ Date: _____

Show all your work. Write each answer as an exact value — a fraction in lowest terms (like $\frac{3}{4}$), a whole number, or a decimal — with correct units where asked.

1. On a line plot, a scientist recorded these leaf lengths (in inches): three leaves at $\frac{1}{8}$, two leaves at $\frac{3}{8}$, four leaves at $\frac{1}{2}$, and one leaf at $\frac{7}{8}$. What is the TOTAL length, in inches, of all the recorded leaves added together?

Answer: _____

3. A 4.2 kg bag of rice is repackaged into small bags that each hold 0.35 kg. How many small bags are filled?

Answer: _____

5. A hiker plans a $5\frac{3}{8}$ mile trail. She hikes $2\frac{3}{4}$ miles before lunch and $1\frac{1}{2}$ miles after lunch. How many miles of the trail are left? Give your answer as a fraction.

Answer: _____

7. A movie is 2.5 hours long and the previews before it last 45 minutes. What is the total time, in minutes, of the previews plus the movie? (1 hour = 60 minutes)

Answer: _____

9. On a line plot, four samples each weigh $\frac{1}{4}$ gram, three samples each weigh $\frac{3}{4}$ gram, and one sample weighs $\frac{1}{2}$ gram. What is the total weight, in grams, of all eight samples? Give your answer as a fraction.

Answer: _____

2. A jug holds 2.75 L of juice. It is poured into cups that each hold exactly 0.15 L. After filling as many full cups as possible, how many milliliters (mL) of juice are left over? (1 L = 1000 mL)

Answer: _____

4. On a line plot of pencil lengths, the longest pencil is $3\frac{3}{4}$ inches and the shortest is $1\frac{5}{8}$ inches. What is the difference in length, in inches? Give your answer as a fraction.

Answer: _____

6. Three ribbons each measure $\frac{2}{3}$ meter and a fourth ribbon measures $\frac{5}{6}$ meter. What is the total length of all four ribbons, in meters? Give your answer as a fraction.

Answer: _____

8. Compute $\frac{6}{5} \times 2.5$. Give your answer as a whole number.

Answer: _____

10. A 3.6 meter length of ribbon is cut into pieces that are each $\frac{2}{5}$ meter long. How many pieces are made?

Answer: _____

11. Compute $\frac{7}{8} - 0.5 + \frac{1}{4}$. Give your answer as a fraction in lowest terms.

Answer: _____