Solving Mixed Number Sums with Bar Diagrams

Solve the following word problems by filling in the bar diagrams below each exercise.

Jenny and Tina drove to their aunt Julie's house. Jenny drove 98 3/4 miles. Tina drove 153 3/7 miles before 1. they arrived. How many miles did they drive in all?

153
$$\frac{3}{7} = 153\frac{12}{28}$$
 miles $98 \frac{3}{4} = 98 \frac{21}{28}$?

$$153\frac{12}{28}$$
 miles + 98 $\frac{21}{28}$ = $251\frac{33}{28}$ miles $252\frac{5}{28}$ miles

2. Milo flew 98 2/9 kilometers to Stuttgart to visit his uncle Ben. After picking up Milo, Ben drove 9 ¾ kilometers to his house in Ludwigsburg. How many kilometers had Milo traveled in all?

987
$$\frac{2}{9}$$
 kilometers $9\frac{3}{4}$

987
$$\frac{12}{28}$$
 kilometers $9\frac{27}{36} = 996\frac{35}{36}$ kilometers

3. It was Hazel's first trip to the Bahamas and she flew 300 3/16 more miles than she flew last summer. Last summer she flew 246 2/8 miles. How many miles had Hazel flown in all?

$$300 \frac{3}{16}$$
 miles

$$246 \frac{2}{8} = 246 \frac{4}{16}$$
 ?

$$300 \frac{3}{16} + 246 \frac{4}{16}$$

$$\frac{4}{16}$$

$$= 546 \frac{7}{16}$$
 miles

Solving Mixed Number Sums with Bar Diagrams

In the relay, Dexter was to run 3 3/8 of the course. Afterwards, Eli was to continue 6 5/16 of the course. 4. How much of the course did Eli and Dexter run combined?

$$3\frac{3}{8} = 3\frac{6}{16}$$
 miles

$$6\frac{5}{16}$$

$$3\frac{6}{16} + 6\frac{5}{16} = 9\frac{11}{16}$$
 miles

5. Nobody wanted to ride the 22 1/3 miles back to town after the family reunion. So relatives rode 2 5/8 miles to the nearest hotel. How many miles did the family ride in all?

$$22\frac{1}{3} = 22\frac{8}{24}$$
 miles

$$2\frac{5}{8} = 2\frac{15}{24}$$

$$\frac{5}{3} = 2\frac{15}{24}$$

$$22\frac{8}{24} + 2\frac{15}{24} = 24\frac{23}{24}$$
 miles

