

**PROBLEM SOLVING**  
**Lesson 8.5**

Name \_\_\_\_\_

**Problem Solving • Comparison Problems with Fractions**

COMMON CORE STANDARD CC.4.NF.4c

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

Read each problem and solve.

1. A shrub is  $1\frac{2}{3}$  feet tall. A small tree is 3 times as tall as the shrub. How tall is the tree?

$t$  is the height of the tree, in feet.

$$t = 3 \times 1\frac{2}{3}$$

$$t = 3 \times \frac{5}{3}$$

$$t = \frac{15}{3}$$

$$t = 5$$

So, the tree is 5 feet tall.

shrub

$1\frac{2}{3}$
----------------

tree

$1\frac{2}{3}$	$1\frac{2}{3}$	$1\frac{2}{3}$
----------------	----------------	----------------

5 feet

2. You run  $1\frac{3}{4}$  miles each day. Your friend runs 4 times as far as you do. How far does your friend run each day?

\_\_\_\_\_

3. At the grocery store, Ayla buys  $1\frac{1}{3}$  pounds of ground turkey. Tasha buys 2 times as much ground turkey as Ayla. How much ground turkey does Tasha buy?

\_\_\_\_\_

4. When Nathan's mother drives him to school, it takes  $\frac{1}{5}$  hour. When Nathan walks to school, it takes him 4 times as long to get to school. How long does it take Nathan to walk to school?

\_\_\_\_\_

### Lesson Check (CC.4.NF.4c)

- A Wilson's Storm Petrel is a small bird with a wingspan of  $1\frac{1}{3}$  feet. A California Condor is a larger bird with a wingspan almost 7 times as wide as the wingspan of the petrel. About how wide is the wingspan of the California Condor?

(A)  $\frac{4}{21}$  foot  
 (B)  $2\frac{1}{3}$  feet  
 (C)  $7\frac{1}{3}$  feet  
 (D)  $9\frac{1}{3}$  feet
- The walking distance from the Empire State Building in New York City to Times Square is about  $\frac{9}{10}$  mile. The walking distance from the Empire State Building to Sue's hotel is about 8 times as far. About how far is Sue's hotel from the Empire State Building?

(A)  $\frac{9}{80}$  mile  
 (B)  $\frac{72}{80}$  mile  
 (C)  $1\frac{7}{10}$  miles  
 (D)  $7\frac{2}{10}$  miles

### Spiral Review (CC.4.OA.4, CC.4.NF.2, CC.4.NF.3d, CC.4.NF.4c)

- Which of the following expressions is NOT equal to  $3 \times 2\frac{1}{4}$ ? (Lesson 8.4)

(A)  $3 \times \frac{9}{4}$   
 (B)  $(3 \times 2) + (3 \times \frac{1}{4})$   
 (C)  $6\frac{3}{4}$   
 (D)  $3 \times 2 + \frac{1}{4}$
- On a ruler, which measurement is between  $\frac{3}{16}$  inch and  $\frac{7}{8}$  inch? (Lesson 6.8)

(A)  $\frac{1}{16}$  inch      (C)  $\frac{11}{16}$  inch  
 (B)  $\frac{1}{8}$  inch      (D)  $\frac{15}{16}$  inch
- At a bake sale, Ron sells  $\frac{7}{8}$  of an apple pie and  $\frac{5}{8}$  of a cherry pie. Altogether, how much pie does he sell at the bake sale? (Lesson 7.5)

(A)  $\frac{2}{8}$   
 (B)  $\frac{12}{16}$   
 (C)  $\frac{12}{8}$   
 (D)  $\frac{35}{8}$
- Which of the following numbers is composite? (Lesson 5.5)

(A) 4      (C) 2  
 (B) 3      (D) 1