# Reasoning and Problem Solving Fractions Greater Than 1

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#### **Developing**

1a. Various answers, for example:

$$\frac{1}{4}$$
 and  $\frac{6}{4}$ ;  $\frac{2}{4}$  and  $\frac{5}{4}$ ;  $\frac{3}{4}$  and  $\frac{4}{4}$ .

2a. False. The image shows seven thirds which is equal to two wholes and one third.

3a. Simon is correct because there are two whole shapes shaded and one half of the third shape.

### <u>Developing</u>

1b. Various answers, for example:

$$\frac{1}{3}$$
 and  $\frac{5}{3}$ ;  $\frac{2}{3}$  and  $\frac{4}{3}$ ;  $\frac{3}{3}$  and  $\frac{3}{3}$ 

2b. False. The image shows two wholes and one half which is equal to five halves.

**3b.** Elliot and Layla are both correct because ten quarters is equivalent to two wholes and two quarters.

#### **Expected**

4a. Various answers, for example:

$$\frac{9}{8}$$
 and  $\frac{8}{8}$ ;  $\frac{10}{8}$  and  $\frac{7}{8}$ ;  $\frac{11}{8}$  and  $\frac{6}{8}$ .

Jayden must have more than 1.

5a. False. The image is split into ninths. The image shows thirty-one ninths which is equal to three wholes and four ninths.

6a. Ahmed is correct because the fraction shown is two wholes and six eighths which is equivalent to twenty-two eighths.

#### **Expected**

4b. Various answers, for example:

$$\frac{11}{6}$$
 and  $\frac{8}{6}$ ;  $\frac{10}{6}$  and  $\frac{9}{6}$ ;  $\frac{5}{6}$  and  $\frac{14}{6}$ . Alfie must have less than  $\frac{12}{6}$ .

**5b.** True. The image shows four wholes and one seventh which is equal to twenty-nine sevenths.

**6b.** Kara is correct because there are three whole shapes shaded and two sixths of the fourth shape.

#### **Greater Depth**

7a. Various answers, for example:

$$\frac{12}{12}$$
 and  $\frac{17}{12}$ ;  $\frac{11}{12}$  and  $\frac{18}{12}$ ;  $\frac{14}{12}$  and  $\frac{15}{12}$ 

Accept correct answers given in sixths.

**8a**. False. The image shows forty-six twelfths which doesn't have an equivalent of ninths.

9a. Emily and Jacob are both correct because the fraction shown is forty-two eighteenths which is equivalent to twenty-eight twelfths and fourteen sixths.

### **Greater Depth**

7b. Various answers, for example:

$$\frac{4}{5}$$
 and  $\frac{12}{5}$ ;  $\frac{6}{5}$  and  $\frac{10}{5}$ ;  $\frac{5}{5}$  and  $\frac{11}{5}$ 

Accept correct answers given in tenths. Max must eat more than Julia and Julia must have less than  $\frac{9}{5}$ .

**8b.** False. The image shows ninety-nine twenty-firsts which is equivalent to sixty-six fourteenths.

9b. Clement is correct because the fraction shown is thirty-six fifteenths which is equivalent to twenty-four tenths.