

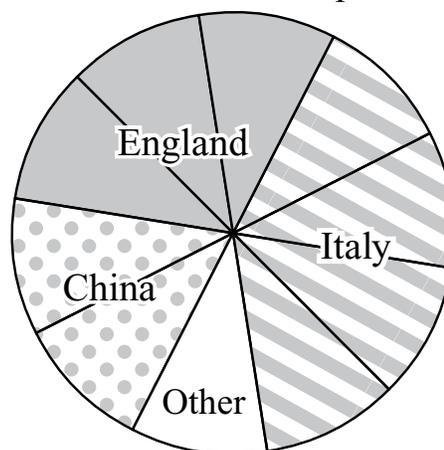
Fractions / Mixed Numbers / Decimals Sample Problems

55. a. What fraction of the overseas flights from this airport go to China?

Be sure that $\frac{2}{10}$ and $\frac{1}{5}$ are both included in the class discussion.

- b. What fraction of the flights go to either England or Italy?
- c. 130 overseas flights left Gotham Airport last weekend.
How many of them went to England?
- d. Yesterday, 6 flights from Gotham went to China.
How many went to England?

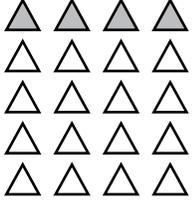
Overseas Plane Destinations from Gotham Airport

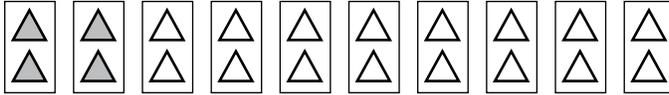


98. **Explain** a way to find each of these answers using only **mental** strategies.

- a. What is $\frac{5}{6}$ of 30 chairs?
- b. The regular price of a shirt is \$18.75. It is on sale for “ $\frac{1}{3}$ off”. This means that $\frac{1}{3}$ of \$18.75 will be subtracted from the price. How much will be subtracted?
- c. What is half of $6\frac{4}{5}$ miles?
- d. Dale, Eli, and Fritz inherited their grandfather’s estate. Dale and Eli each got $\frac{3}{10}$ of the money.
What fraction of the estate did Fritz get?
Was Fritz’s share more or less than $\frac{1}{3}$ of the total estate?

148. a. Write the three equivalent fractions that are modeled by these pictures. Each picture shows the same set of triangles.

A.  5 rows of \triangle s and 1 of them is shaded.
 Fraction of set which is shaded: ?

B. 

10 pairs of triangles, and 2 pairs are shaded.

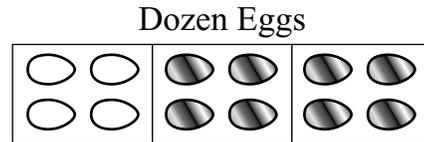
Fraction of set that are shaded: ?

C. 

20 triangles and 4 of them are shaded.

Fraction of set that are shaded: ?

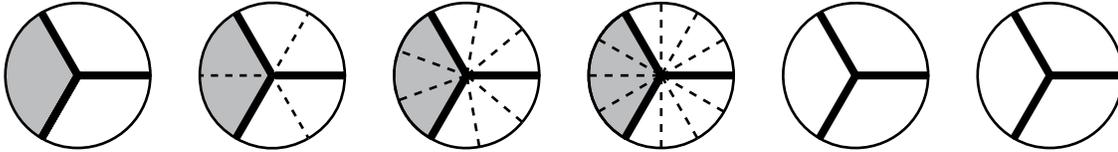
b. Write three equivalent fractions which each represent the portion of the eggs which are dyed.



c. Write two more fractions that are equivalent to all of these:

$\frac{1}{3}$, $\frac{2}{6}$, $\frac{3}{9}$, $\frac{4}{12}$, ,

Hint: Use these models if they help you:



3 equal pieces 6 equal pieces 9 equal pieces 12 equal pieces ? ?
 1 shaded 2 shaded 3 shaded 4 shaded

$\frac{1}{3}$ $\frac{2}{6}$

173. Put the correct sign ($>$, $<$, or $=$) between each pair of quantities:

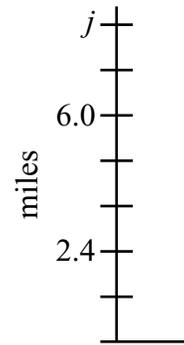
- a. 3.9 meters 388 centimeters c. $\frac{2}{9}$ yards .2 yards
- b. 1.6 miles $1\frac{1}{2}$ miles d. 1.04 gallons 3.96 quarts

216. The picture at right is a number scale from a graph. What number does j represent?

We expect students to understand that each equal interval on a number scale represents the same amount of whatever is being represented on the scale.

In this case 2 intervals represent a total of 2.4 miles. So each interval represents 1.2 miles.

Now it is simple to calculate that j must represent 8.4.



298. A small box of gelatin contains 3.8 ounces and a large box contains $6\frac{2}{5}$ ounces. The big box contains how much more gelatin than the small box? (Hint: Write both weights as mixed numbers, or as decimals, with fraction parts written as tenths.)