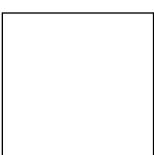
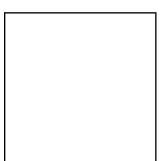
Shade  $\frac{3}{4}$  of this square in two different ways.





**ANSWER** Sample:





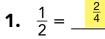
**COMMENTS & EXTENSIONS** Similar questions could be posed by changing the  $\frac{3}{4}$  to **a.**  $\frac{4}{5}$ ; **b.**  $\frac{7}{8}$ ; **c.**  $\frac{2}{5}$ ; or **d.**  $\frac{3}{7}$ .

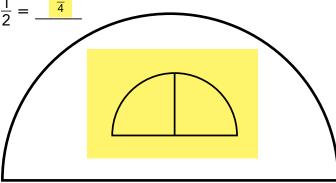
Shade  $\frac{3}{4}$  of what remains unshaded. What part of the whole did you shade this time?



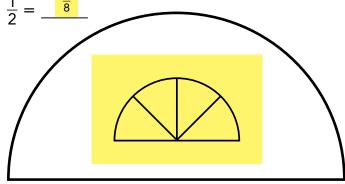
## **Try This**

- Find same-color Fraction Circle pieces that will cover each figure exactly.
- Trace the smaller pieces on each figure and color them.
- Write your answer on the line.

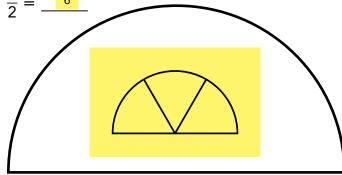




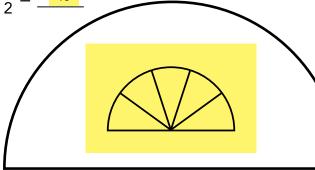
$$\frac{1}{2} = \frac{\frac{4}{8}}{}$$



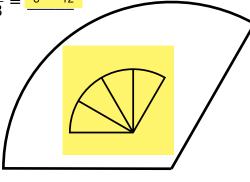


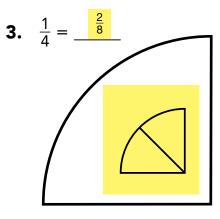


$$\frac{1}{2} = \frac{\frac{5}{10}}{}$$

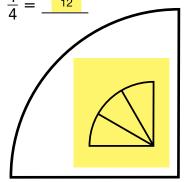


**2.** 
$$\frac{1}{3} = \frac{\frac{2}{6} \text{ or } \frac{4}{12}}{\frac{4}{12}}$$



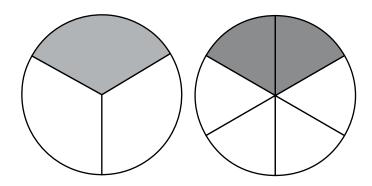


$$\frac{1}{4} = \frac{\frac{3}{12}}{12}$$



Use Fraction Circles to build the models. Write equivalent fractions for the shaded parts. Write equivalent fractions for the unshaded parts.

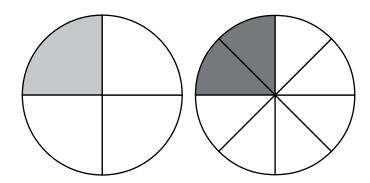
1.



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

$$\frac{2}{3}$$
 =  $\frac{4}{6}$ 

2.



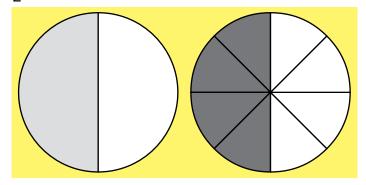
$$\frac{1}{4}$$
 =  $\frac{2}{8}$ 

$$\frac{3}{4}$$
 =  $\frac{6}{8}$ 

Use Fraction Circles to model the given fraction. Sketch the fraction. Then sketch a model of an equivalent fraction. Write the equivalent fraction.

3. 
$$\frac{1}{2} = \frac{\frac{4}{8}}{}$$

Sample answer given



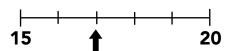
Fill in the missing numerator. Use Fraction Circles if needed.

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

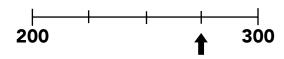
$$\frac{1}{2} = \frac{2}{4}$$

**4.** 
$$\frac{1}{2} = \frac{3}{6}$$
 **5.**  $\frac{1}{2} = \frac{2}{4}$  **6.**  $\frac{1}{2} = \frac{5}{10}$ 

a. What number is the arrow pointing to?



**b.** What number is the arrow pointing to?



**ANSWER a.** 17; **b.** 275

**COMMENTS & EXTENSIONS** Here are some backward versions of the same problem. Show the following numbers on number line a.

- **a.** 19
- **b.** 17.5
- **c.** 15.5

## **Try This**

- Model the fractions using Fraction Tower Cubes and the double number line.
- Mark the fractions on the number line using a dry erase marker.
- Model equivalent fractions.
- Write the equivalent fractions for each given fraction.
- Find equivalent fractions for  $\frac{1}{3}$  and  $\frac{2}{3}$ .

Find equivalent fractions for  $\frac{1}{4}$ ,  $\frac{2}{4}$ , and  $\frac{3}{4}$ .

```
\frac{6}{8}, \frac{9}{12}
```

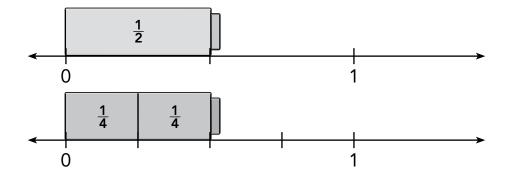
Find equivalent fractions for  $\frac{1}{2}$  and 1. 3.

Do you see a pattern in each set of equivalent fractions? Explain.

The equivalent fractions are the result of multiplying both the numerator and denominator of the given fractions by 2, then 3, then 4, and so on.

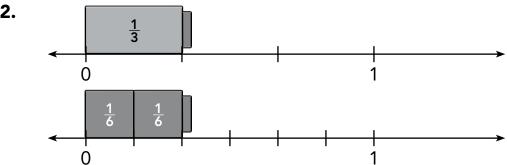
## Use Fraction Towers and the double number line to build the models. Write the equivalent fraction.

1.



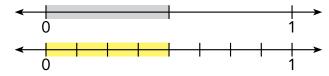
$$\frac{1}{2} = \frac{\frac{2}{4}}{}$$

2.

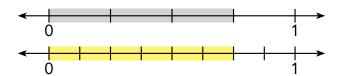


$$\frac{1}{3} = \frac{\frac{2}{6}}{}$$

Look at the fraction shaded on the first number line. Shade an equivalent fraction on the second number line. Write the equivalent fraction.



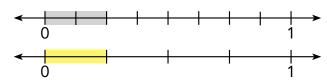
$$\frac{1}{2} = \frac{\frac{4}{8}}{}$$



$$\frac{3}{4} = \frac{\frac{6}{8}}{}$$



$$\frac{4}{6} = \frac{\frac{2}{3}}{3}$$

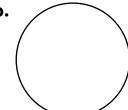


$$\frac{2}{8} = \frac{\frac{1}{4}}{}$$

Shade  $\frac{3}{4}$  of each figure.

a.

b.



**ANSWER a.** Sample:

**b.** Sample:



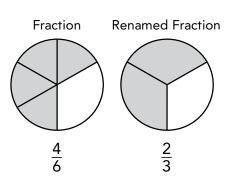
**COMMENTS & EXTENSIONS** Challenge: Suppose the figures represent candy bars each worth \$1.00. What is the cost of the shaded part? What if the candy cost \$2.00? How about \$3.00? What patterns do you find?

6.

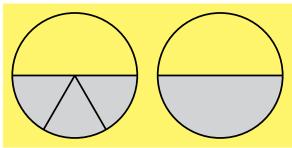


## **Try This**

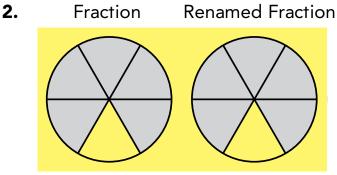
- Model each fraction using Fraction Circle pieces and draw its picture.
- Then model an equivalent fraction with the fewest fraction pieces that you can. Draw its picture.
- Write the renamed fraction on the line.



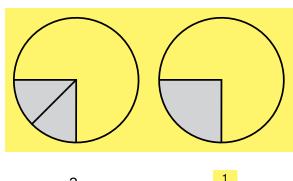
Renamed Fraction Fraction 1.



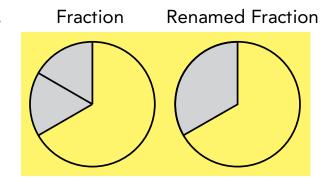
$$\frac{3}{6}$$
 =  $\frac{1}{2}$ 



Fraction 3. Renamed Fraction

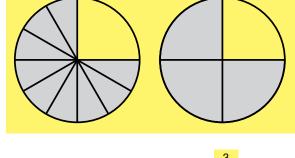


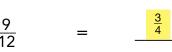
$$\frac{2}{8}$$
 =  $\frac{1}{4}$ 

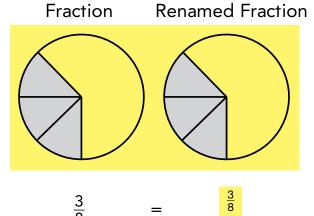




Fraction Renamed Fraction 5.

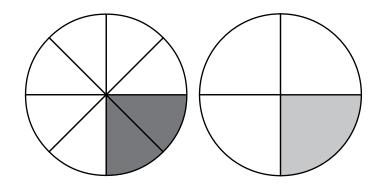






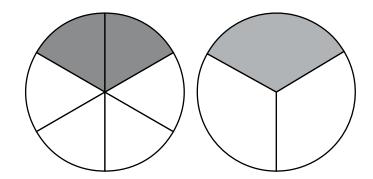
Use Fraction Circles to build the models. Rename the equivalent fraction.

1.



$$\frac{2}{8} = \frac{\frac{1}{4}}{}$$

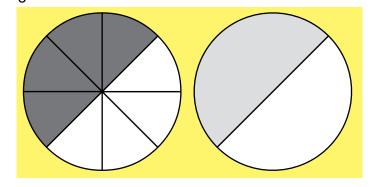
2.



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

Use Fraction Circles to model the given fraction. Then model an equivalent fraction using the fewest fraction pieces that you can. Draw your models. Write the fraction.

3.  $\frac{4}{8} = \frac{\frac{1}{2}}{\frac{1}{2}}$ 



Write the simplest equivalent fraction. Use Fraction Circles if needed.

- **4.**  $\frac{6}{8} = \frac{\frac{3}{4}}{\frac{2}{3}}$  **5.**  $\frac{2}{4} = \frac{\frac{1}{2}}{\frac{2}{3}}$  **6.**  $\frac{4}{6} = \frac{\frac{2}{3}}{\frac{2}{3}}$