TOPIC: SIMPLIFYING FRACTIONS

Intro to Fractions

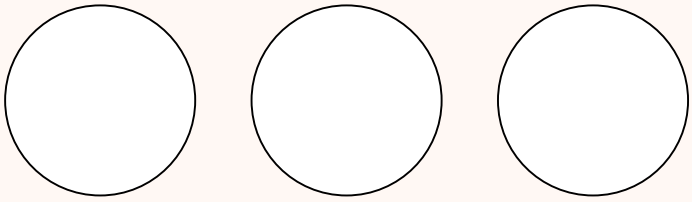
◆ A *fraction* represents part of a whole & has a **numerator**, **denominator**, and **fraction bar**: $\frac{a}{b} =$ ÷ , $b \neq$ ___.

► Get *equivalent fractions* by _____ the numerator & denominator by the same _____.

New **Fractions**

_____ *parts*

 # of _____ *parts*

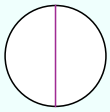
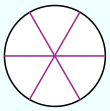
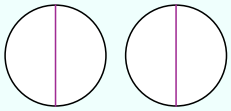
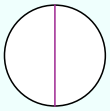
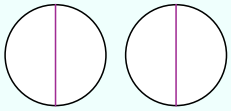
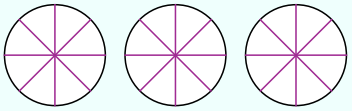


$\frac{a}{b} = \frac{a \cdot}{b \cdot}$

$\frac{1}{2}$ $\frac{2}{4}$ $\frac{3}{6}$

Types of Fractions

◆ Fractions can be proper, improper, or mixed.

Fraction	Definition	Example
Proper	numerator denominator: Value is 1	$\frac{1}{2}$  $\frac{4}{6}$ 
Improper	numerator denominator: Value is 1	$\frac{3}{2}$  $\frac{2}{2}$ 
Mixed	whole number *proper fraction*	$1\frac{1}{2}$  $2\frac{3}{8}$ 

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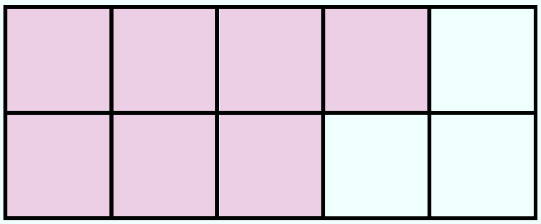
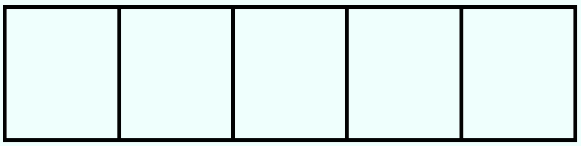
EXAMPLE What fractions are represented by each illustration?

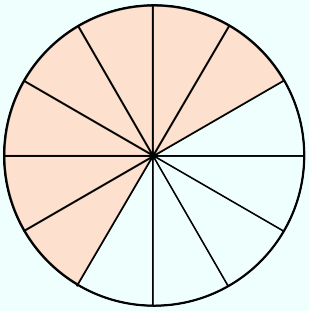
(A)



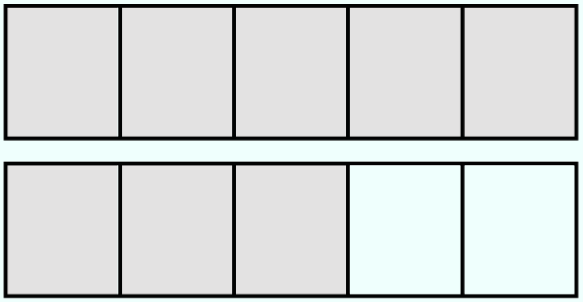
(B)



(C)



(D)



PRACTICE From the choices, select the fraction equivalent to the given fraction.

(A) $\frac{3}{5}$

a. $\frac{9}{15}$

b. $\frac{6}{20}$

c. $\frac{15}{5}$

(B) $\frac{11}{4}$

a. $\frac{55}{15}$

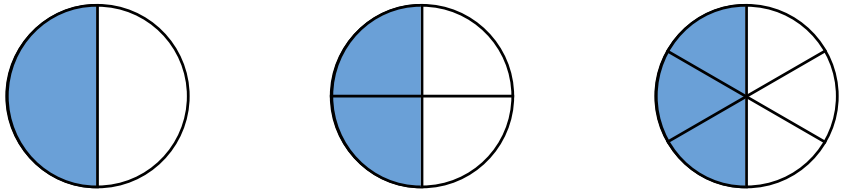
b. $\frac{33}{12}$

c. $\frac{66}{18}$

TOPIC: SIMPLIFYING FRACTIONS

Simplify Fractions (Write Fractions in Lowest Terms)

◆ Recall: You can get equivalent fractions by *mutiplying* the numerator and denominator by the same constant.



$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$$

► To **simplify** a fraction into **lowest terms**, factor num. and denom. & *divide out* (_____) greatest common factor.

New **Simplifying Fractions**

$$\frac{a \cdot c}{b \cdot c} = \quad = \quad = \frac{a}{b}$$

$$\frac{4}{6} = \text{\_\_\_\_}$$

◆ If GCF isn't obvious, factor num. & denom. into *prime* factors OR choose ____ common factor & work in stages.

EXAMPLE Simplify the following fractions to lowest terms.

(*A*) $\frac{80}{60}$

(*B*) $\frac{5}{4}$

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PRACTICE Simplify the following fractions to lowest terms.

($\boldsymbol{A}$) $\frac{6}{15}$

($\boldsymbol{B}$) $\frac{288}{24}$

($\boldsymbol{C}$) $\frac{28}{56}$