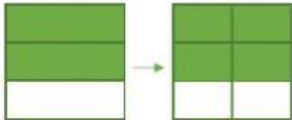# 14. Equivalent Fractions Rule

A. Visual learning

How can you use multiplication or division to find equivalent fractions?

Use Multiplication

What are some fractions equivalent to $\dfrac{2}{3}$?

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

To find the equivalent fractions, **multiply** the numerator and the denominator by the **same number**.

Multiply by 2	Multiply by 3	Multiply by 40
$\dfrac{2}{3} = \dfrac{4}{6}$ ($\times 2$)	$\dfrac{2}{3} = \dfrac{6}{9}$ ($\times 3$)	$\dfrac{2}{3} = \dfrac{80}{120}$ ($\times 40$)

$\dfrac{2}{3}$; $\dfrac{4}{6}$; $\dfrac{6}{9}$ and $\dfrac{80}{120}$ are **equivalent fractions.**

Use Division

What are some fractions equivalent to $\dfrac{18}{24}$?

Divide the numerator and the denominator by the **same number**.

Divide by 2	Divide by 3	Divide by 6
$\dfrac{18}{24} = \dfrac{9}{12}$ ($\div 2$)	$\dfrac{18}{24} = \dfrac{6}{8}$ ($\div 3$)	$\dfrac{18}{24} = \dfrac{3}{4}$ ($\div 6$)

$\dfrac{9}{12}$; $\dfrac{6}{8}$; $\dfrac{3}{4}$ and $\dfrac{18}{24}$ are **equivalent fractions.**

B. Vocabulary

equivalent fractions: _____

multiply: _____

same number: _____

divide: _____

C. Independent practice

*In **1 – 4**, write the **missing numbers**.*

1. $\dfrac{2}{7} = \dfrac{\boxed{}}{21}$ (×3 / ×3)

2. $\dfrac{1}{3} = \dfrac{4}{\boxed{}}$ (×__ / ×__)

3. $\dfrac{6}{9} = \dfrac{\boxed{}}{3}$ (÷__ / ÷__)

4. $\dfrac{12}{\boxed{}} = \dfrac{3}{5}$ (÷__ / ÷__)

*In **5 – 8**, multiply or divide to find an equivalent fraction to the given one.*

5. $\dfrac{12}{20} = \dfrac{\boxed{}}{\boxed{}}$

6. $\dfrac{6}{8} = \dfrac{\boxed{}}{\boxed{}}$

7. $\dfrac{5}{9} = \dfrac{\boxed{}}{\boxed{}}$

8. $\dfrac{3}{8} = \dfrac{\boxed{}}{\boxed{}}$

9. *Tick (✓) all fractions that are equivalent to* $\dfrac{3}{4}$.

☐ $\dfrac{2}{4}$ ☐ $\dfrac{1}{3}$

☐ $\dfrac{6}{8}$ ☐ $\dfrac{12}{16}$

☐ $\dfrac{9}{16}$ ☐ $\dfrac{9}{12}$

10. In Missy's sports-cards collection, $\dfrac{2}{3}$ of the cards are football. In Frank's collection, $\dfrac{12}{21}$ are football.

Frank says they have the same fraction of football cards.

Is he correct? Explain.

_____

_____

_____