Name:_____   Div:_____   Date:_____

5.2 Converting Between Mixed Numbers and Improper Fractions

Warm-up: Match the following mixed and improper fractions

$1\frac{1}{4}$ $2\frac{1}{3}$ $3\frac{2}{5}$ $1\frac{3}{10}$

$\frac{17}{5}$ $\frac{5}{4}$ $\frac{13}{10}$ $\frac{7}{3}$

What do you notice stays the same when you convert the numbers from mixed to improper fractions?

To write $2\frac{3}{4}$ as an improper fraction:
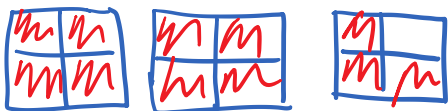
Allison things about money:

$2

3 quarters ↗

There are 11 quarters all together.

So, $2\frac{3}{4} = \frac{11}{4}$

Hiroshi draws a diagram to represent $2\frac{3}{4}$

Hiroshi then divides each whole to show quarters

So, $2\frac{3}{4}$ is the same as $\frac{11}{4}$

Nadia uses mental math…

There are 4 quarters in a whole, so in 2 wholes there are $2 \times 4 = 8$ quarters. Eight quarters plus 3 more quarters = 11 quarters. So, $2\frac{3}{4}$ is the same as $\frac{11}{4}$.

Try:

$$3\frac{2}{5}$$

Steps:

1. Multiply the **whole** number by the **denominator**.

2. **Add** the **numerator** from the fraction. $15 + 2 = 17$

3. Keep the **same** denominator as the fraction. $\dfrac{17}{5}$

$$3\frac{2}{5} = \frac{17}{5}$$

$$3\frac{2}{5}$$

$$3 \overset{2}{\underset{5}{\times}}$$ 15

$$\frac{17}{5}$$

A. $4\overset{+1}{\underset{\times 2}{\frac{1}{2}}}$ $4 \times 2 = 8 + 1 = 9 \rightarrow \frac{9}{2}$

B. $6\frac{4}{5}$ $\dfrac{34}{5}$

C. $3\frac{2}{4}$ $\dfrac{14}{4} = \dfrac{7}{2}$

HW: p. 168 1-4 odds, 5-8 Bonus 9-11
Converting Improper and Mixed Fractions