Section 3.5 – Mixed Numbers

Part whole #
part fraction

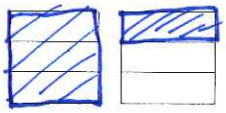
$3\frac{1}{2}$ →

mixed numbers → Improper fractions

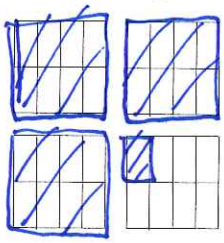
Practice 3 – 5 & 3 – 6: Working with Mixed Numbers Name _____

Shade the figure to model the mixed number. Then write the mixed number as an improper fraction.

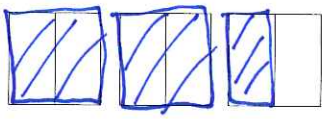
1. $1\frac{1}{3} = \frac{4}{3}$



2. $3\frac{1}{8} = \frac{25}{8}$

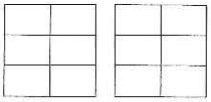


3. $2\frac{1}{2} = \frac{5}{2}$

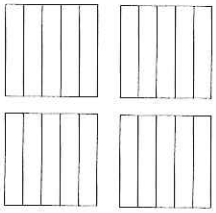


4. $2\frac{3}{4} =$

5. $1\frac{5}{6} =$



6. $3\frac{1}{5} =$

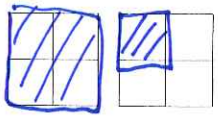


Summary:

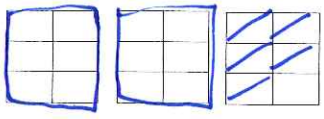
To convert a mixed number to an improper fraction, multiply the whole number part by the denominator and then add the numerator. Write this number as the new numerator and keep the same denominator.

Shade the figure to model the improper fraction. Then write the improper fraction as a mixed number.

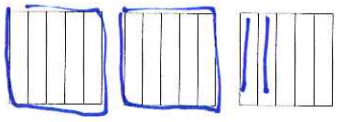
7. $\frac{5}{4} = 1\frac{1}{4}$



8. $\frac{17}{6} = 2\frac{5}{6}$



9. $\frac{12}{5} = 2\frac{2}{5}$



Summary:

To convert an improper fraction to a mixed number, divide the numerator by the denominator to get the whole number part. Write the remainder as the numerator of the fractional part and keep the same denominator.

$-\frac{13}{3} = -4\frac{1}{3}$

Change all mixed numbers to improper fractions

Convert the mixed number to an improper fraction, then perform the indicated operation. Write your answer both as an improper fraction and as a mixed number.

10. $1\frac{2}{5} + \frac{4}{5}$

$= \frac{7}{5} + \frac{4}{5}$

$= \frac{11}{5}$ ← ok to leave improper

$= 2\frac{1}{5}$ ↓ practice

11. $\frac{2}{3} - 4\frac{1}{2}$

$= \frac{2 \cdot 2}{3 \cdot 2} - \frac{9 \cdot 3}{2 \cdot 3}$

$= \frac{4}{6} - \frac{27}{6}$

$= -\frac{23}{6}$

$= -3\frac{5}{6}$

12. $-2\frac{1}{3} \cdot \frac{4}{5}$

$= -\frac{7}{3} \cdot \frac{4}{5}$

$= -\frac{28}{15}$

$= -1\frac{13}{15}$

$28 - 15 = 13$

13. $2\frac{1}{4} \div \frac{5}{6}$

$= \frac{9}{4} \div \frac{5}{6}$

$= \frac{9}{4} \cdot \frac{6^{3}}{5}$

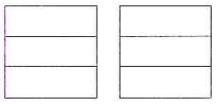
$= \frac{27}{10}$

$= 2\frac{7}{10}$

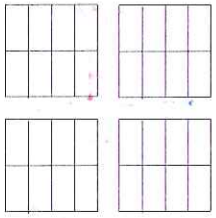
Practice 3 – 5 & 3 – 6: Working with Mixed Numbers Name _____

Shade the figure to model the mixed number. Then write the mixed number as an improper fraction.

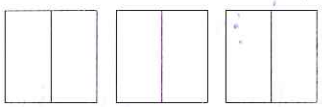
1. $1\frac{1}{3}$ =



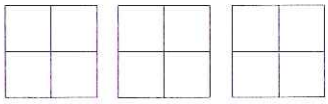
2. $3\frac{1}{8}$ =



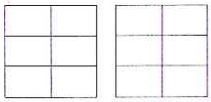
3. $2\frac{1}{2}$ =



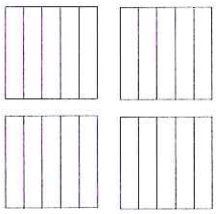
4. $2\frac{3}{4}$ =



5. $1\frac{5}{6}$ =



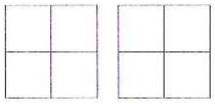
6. $3\frac{1}{5}$ =



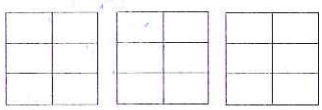
Summary:
To convert a mixed number to an improper fraction, _____ the whole number part by the _____ and then _____ the _____. Write this number as the new _____ and keep the same _____.

Shade the figure to model the improper fraction. Then write the improper fraction as a mixed number.

7. $\frac{5}{4}$ =



8. $\frac{17}{6}$ =



9. $\frac{12}{5}$ =

Summary:
To convert an improper fraction to a mixed number, _____ the numerator by the _____ to get the whole number part. Write the remainder as the _____ of the fractional part and keep the same _____.

Convert the mixed number to an improper fraction, then perform the indicated operation. Write your answer both as an improper fraction and as a mixed number.

10. $1\frac{2}{5}+\frac{4}{5}$

11. $\frac{2}{3}-4\frac{1}{2}$

12. $-2\frac{1}{3}\cdot\frac{4}{5}$

13. $2\frac{1}{4}\div\frac{5}{6}$