math Antics Exercises

Name:

Date:

Mixed Numbers

1 Re-write this mixed number as a sum of 'whole fractions' and a proper fraction. Then add those fractions up.

$2\frac{1}{4}$

2 Re-write this mixed number as a sum of 'whole fractions' and a proper fraction. Then add those fractions up.

$3\frac{2}{5}$

3 Redo problem 2 using multiplication instead of repeated addition like you saw in the video. (Show your work.)

$3\frac{2}{5}$

4 Use the method you used in problem 3 to convert this mixed number into an improper fraction.

$8\frac{1}{3}$

5 Subtract a 'whole fraction' from this improper fraction. Is the leftover fraction proper or improper?

$\frac{9}{4}$

6 How many 'whole fractions' could be subtracted from this improper fraction? (Hint: use division)

$\frac{20}{3}$

7 Convert this improper fraction into a mixed number using division.

$\frac{10}{7}$

8 Convert this improper fraction into a mixed number using division.

$\frac{9}{4}$

9 Convert this improper fraction into a mixed number using division.

$\frac{15}{4}$

10 Convert this improper fraction into a mixed number using division.

$\frac{28}{5}$

math Antics
Exercises

Name:

Date:

Mixed Numbers

1 Re-write this mixed number as a sum of 'whole fractions' and a proper fraction. Then add those fractions up.

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

$= \frac{4}{4} + \frac{4}{4} + \frac{1}{4} = \frac{9}{4}$

2 Re-write this mixed number as a sum of 'whole fractions' and a proper fraction. Then add those fractions up.

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

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

3 Redo problem 2 using multiplication instead of repeated addition like you saw in the video. (Show your work.)

$3\frac{2}{5} = 3 \times \frac{5}{5} + \frac{2}{5}$

$= \frac{15}{5} + \frac{2}{5} = \frac{17}{5}$

4 Use the method you used in problem 3 to convert this mixed number into an improper fraction.

$8\frac{1}{3} = 8 \times \frac{3}{3} + \frac{1}{3}$

$= \frac{24}{3} + \frac{1}{3} = \frac{25}{3}$

5 Subtract a 'whole fraction' from this improper fraction. Is the leftover fraction proper or improper?

$\frac{9}{4} - \frac{4}{4} = \frac{5}{4}$ Improper

6 How many 'whole fractions' could be subtracted from this improper fraction? (Hint: use division)

$\frac{20}{3}$

$3\overline{)20}$ → 6, -18, remainder 2

7 Convert this improper fraction into a mixed number using division.

$\frac{10}{7} = 1\frac{3}{7}$

$7\overline{)10}$ → 1, -7, remainder 3

8 Convert this improper fraction into a mixed number using division.

$\frac{9}{4} = 2\frac{1}{4}$

$4\overline{)9}$ → 2, -8, remainder 1

9 Convert this improper fraction into a mixed number using division.

$\frac{15}{4} = 3\frac{3}{4}$

$4\overline{)15}$ → 3, -12, remainder 3

10 Convert this improper fraction into a mixed number using division.

$\frac{28}{5} = 5\frac{3}{5}$

$5\overline{)28}$ → 5, -25, remainder 3

See Video for step-by-step solutions to each problem.

math Antics Worksheets

Name:

Date:

Mixed Numbers & Improper Fractions

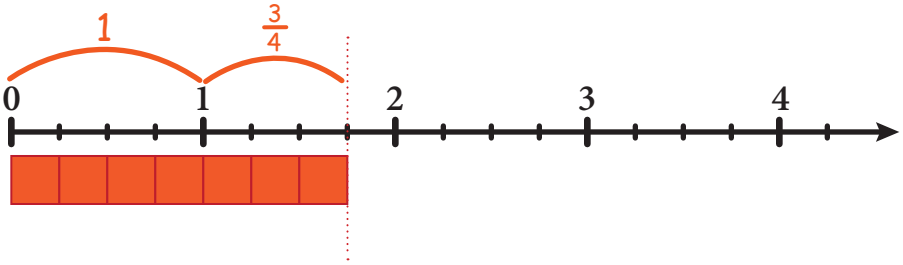
F-MN 1

Instructions: In each problem below, an improper fraction is represented by blocks beneath a number line. Use the number line to determine what the equivalent mixed number form would be. (Notice that some number lines have different sub-divisions: thirds, fourths, fifths...)

1

Mixed Number: $1\frac{3}{4}$

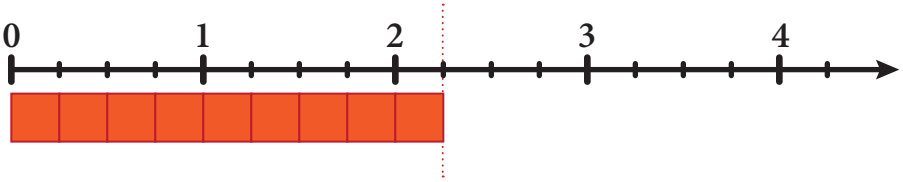
Improper Fraction: $\frac{7}{4}$



2

Mixed Number:

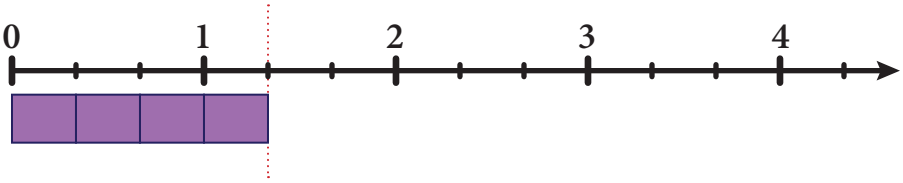
Improper Fraction: $\frac{9}{4}$



3

Mixed Number:

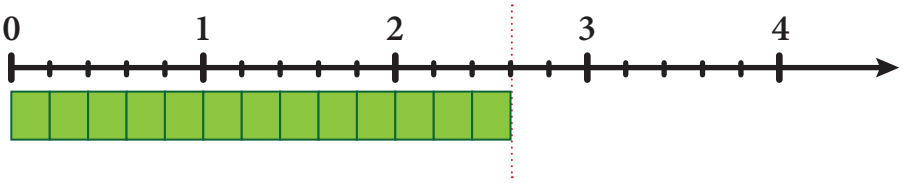
Improper Fraction: $\frac{4}{3}$



4

Mixed Number:

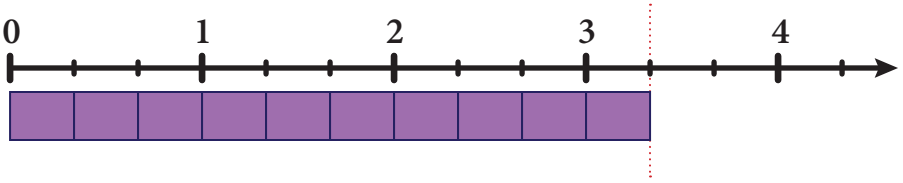
Improper Fraction: $\frac{13}{5}$



5

Mixed Number:

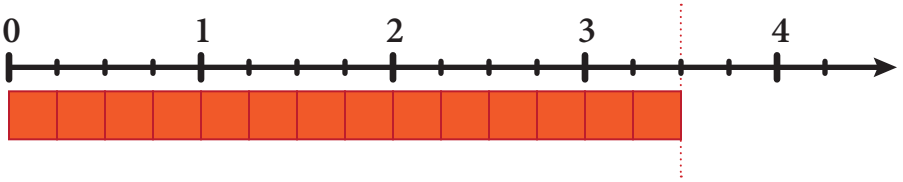
Improper Fraction: $\frac{10}{3}$



6

Mixed Number:

Improper Fraction: $\frac{14}{4}$



math Antics Worksheets

Name:

Date:

Converting Mixed Numbers - The Long Way

F-MN 2

Instructions: Re-write each mixed number as a sum of 'whole fractions' and a proper fraction. Then add those fractions up to get the improper fraction form of the mixed number.

1 $1\frac{3}{8} = 1 + \frac{3}{8}$

$= \frac{8}{8} + \frac{3}{8} = \frac{11}{8}$

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

$= \frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{1}{5} = \frac{16}{5}$

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

4 $2\frac{1}{9}$

5 $1\frac{7}{10}$

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

7 $2\frac{6}{7}$

8 $2\frac{3}{25}$

9 $4\frac{1}{2}$

10 $1\frac{5}{12}$

math Antics Worksheets

Name:

Date:

Converting Mixed Numbers by Multiplying

F-MN 3

Instructions: Convert each mixed number into an improper fraction using multiplication like you saw in the video. (Since multiplication is repeated addition, it's much quicker to multiply the whole number part of the mixed number by a 'whole fraction' and then add the product you get to the fraction part of the mixed number.)

1 $2\frac{3}{4} = 2 \times \frac{4}{4} + \frac{3}{4}$

$= \frac{8}{4} + \frac{3}{4} = \frac{11}{4}$

2 $5\frac{1}{3} = 5 \times \frac{3}{3} + \frac{1}{3}$

$= \frac{15}{3} + \frac{1}{3} = \frac{16}{3}$

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

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

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

6 $9\frac{1}{9}$

7 $2\frac{4}{15}$

8 $11\frac{3}{7}$

9 $1\frac{7}{12}$

10 $25\frac{1}{4}$

math Antics Worksheets

Name: _____

Date: _____

Converting Improper Fractions by Dividing

F-MN 4

Instructions: You can convert an improper fraction into a mixed number just by dividing the top number (numerator) by the bottom number (denominator). The answer to the division is the whole number part of the mixed number and the remainder of the division tells you what fraction is left over.

1 $\frac{14}{5} = 2\frac{4}{5}$

$$5\overline{)14} \quad 2,\ -10,\ 4$$

divide top by bottom

2 $\frac{23}{7} = 3\frac{2}{7}$

$$7\overline{)23} \quad 3,\ -21,\ 2$$

3 $\frac{19}{5}$

4 $\frac{11}{4}$

5 $\frac{31}{7}$

6 $\frac{42}{8}$

7 $\frac{50}{9}$

8 $\frac{22}{7}$

9 $\frac{17}{3}$

10 $\frac{84}{9}$

math Antics Worksheets

Name: _____

Date: _____

Converting Mixed Numbers and Improper Fractions - Set 1

F-MN 5

Instructions: Use the procedures you've learned to convert each mixed number into an improper fraction, and each improper fraction into a mixed number.

1 $4\frac{1}{6} = 4 \times \frac{6}{6} + \frac{1}{6}$

$= \frac{24}{6} + \frac{1}{6} = \frac{25}{6}$

2 $\frac{36}{5} = 7\frac{1}{5}$

$$5\overline{)36}\ 7,\ -35,\ 1$$

3 $3\frac{5}{8}$

4 $\frac{20}{3}$

5 $7\frac{1}{2}$

6 $\frac{23}{10}$

7 $9\frac{2}{3}$

8 $\frac{29}{6}$

9 $5\frac{1}{12}$

10 $\frac{34}{8}$

math Antics Worksheets

Name:

Date:

Converting Mixed Numbers and Improper Fractions - Set 2

F-MN 6

Instructions: Use the procedures you've learned to convert each mixed number into an improper fraction, and each improper fraction into a mixed number.

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

2. $\frac{13}{5}$

3. $2\frac{4}{15}$

4. $\frac{75}{7}$

5. $8\frac{1}{8}$

6. $\frac{16}{5}$

7. $12\frac{2}{3}$

8. $\frac{30}{4}$

9. $6\frac{2}{5}$

10. $\frac{100}{11}$

math Antics Worksheets

Name: _____

Date: _____

Mixed Numbers & Improper Fractions

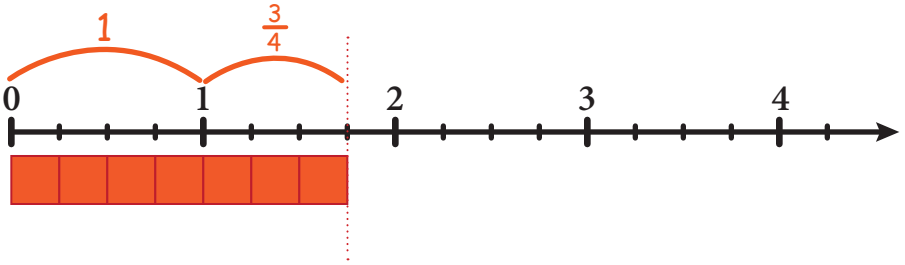
F-MN 1

Instructions: In each problem below, an improper fraction is represented by blocks beneath a number line. Use the number line to determine what the equivalent mixed number form would be. (Notice that some number lines have different sub-divisions: thirds, fourths, fifths...)

1

Mixed Number: $1\frac{3}{4}$

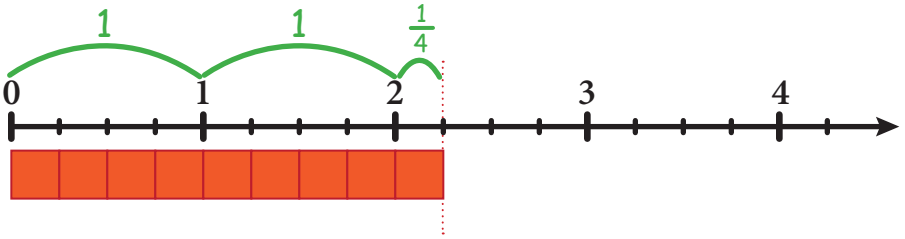
Improper Fraction: $\frac{7}{4}$



2

Mixed Number: $2\frac{1}{4}$

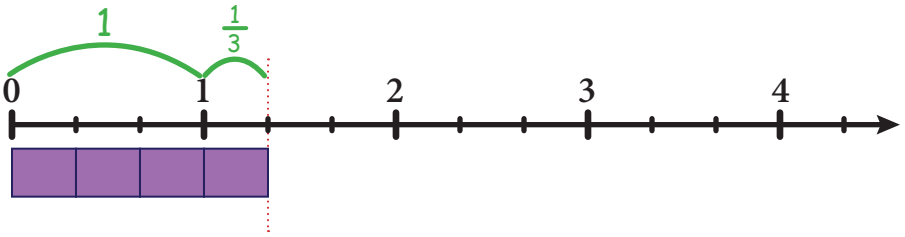
Improper Fraction: $\frac{9}{4}$



3

Mixed Number: $1\frac{1}{3}$

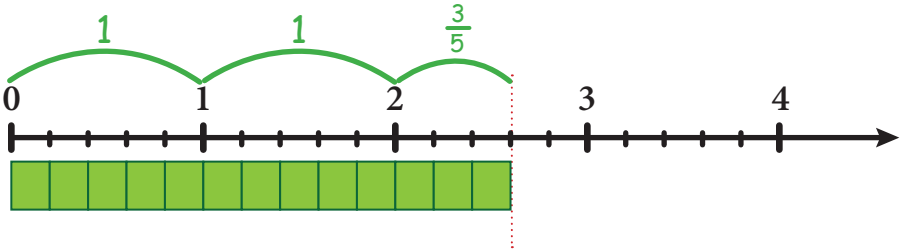
Improper Fraction: $\frac{4}{3}$



4

Mixed Number: $2\frac{3}{5}$

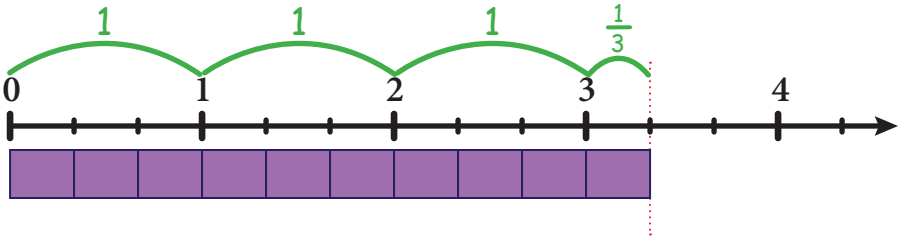
Improper Fraction: $\frac{13}{5}$



5

Mixed Number: $3\frac{1}{3}$

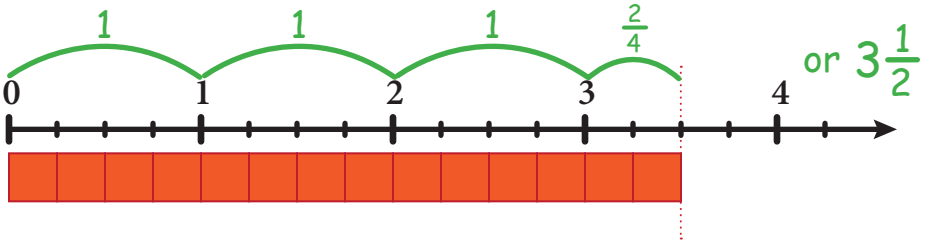
Improper Fraction: $\frac{10}{3}$



6

Mixed Number: $3\frac{2}{4}$

Improper Fraction: $\frac{14}{4}$



math Antics Worksheets

Name: _____

Date: _____

Converting Mixed Numbers - The Long Way

F-MN 2

Instructions: Re-write each mixed number as a sum of 'whole fractions' and a proper fraction. Then add those fractions up to get the improper fraction form of the mixed number.

1 $1\frac{3}{8} = 1 + \frac{3}{8}$

$= \frac{8}{8} + \frac{3}{8} = \frac{11}{8}$

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

$= \frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{1}{5} = \frac{16}{5}$

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

$= \frac{4}{4} + \frac{4}{4} + \frac{3}{4} = \frac{11}{4}$

4 $2\frac{1}{9} = 1 + 1 + \frac{1}{9}$

$= \frac{9}{9} + \frac{9}{9} + \frac{1}{9} = \frac{19}{9}$

5 $1\frac{7}{10} = 1 + \frac{7}{10}$

$= \frac{10}{10} + \frac{7}{10} = \frac{17}{10}$

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

$= \frac{3}{3} + \frac{3}{3} + \frac{3}{3} + \frac{1}{3} = \frac{10}{3}$

7 $2\frac{6}{7} = 1 + 1 + \frac{6}{7}$

$= \frac{7}{7} + \frac{7}{7} + \frac{6}{7} = \frac{20}{7}$

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

$= \frac{25}{25} + \frac{25}{25} + \frac{3}{25} = \frac{53}{25}$

9 $4\frac{1}{2} = 1 + 1 + 1 + 1 + \frac{1}{2}$

$= \frac{2}{2} + \frac{2}{2} + \frac{2}{2} + \frac{2}{2} + \frac{1}{2} = \frac{9}{2}$

10 $1\frac{5}{12} = 1 + \frac{5}{12}$

$= \frac{12}{12} + \frac{5}{12} = \frac{17}{12}$

math Antics Worksheets

Name: _____

Date: _____

Converting Mixed Numbers by Multiplying

F-MN 3

Instructions: Convert each mixed number into an improper fraction using multiplication like you saw in the video. (Since multiplication is repeated addition, it's much quicker to multiply the whole number part of the mixed number by a 'whole fraction' and then add the product you get to the fraction part of the mixed number.)

1 $2\frac{3}{4} = 2 \times \frac{4}{4} + \frac{3}{4}$

$= \frac{8}{4} + \frac{3}{4} = \frac{11}{4}$

2 $5\frac{1}{3} = 5 \times \frac{3}{3} + \frac{1}{3}$

$= \frac{15}{3} + \frac{1}{3} = \frac{16}{3}$

3 $5\frac{1}{6} = 5 \times \frac{6}{6} + \frac{1}{6}$

$= \frac{30}{6} + \frac{1}{6} = \frac{31}{6}$

4 $4\frac{3}{8} = 4 \times \frac{8}{8} + \frac{3}{8}$

$= \frac{32}{8} + \frac{3}{8} = \frac{35}{8}$

5 $10\frac{3}{4} = 10 \times \frac{4}{4} + \frac{3}{4}$

$= \frac{40}{4} + \frac{3}{4} = \frac{43}{4}$

6 $9\frac{1}{9} = 9 \times \frac{9}{9} + \frac{1}{9}$

$= \frac{81}{9} + \frac{1}{9} = \frac{82}{9}$

7 $2\frac{4}{15} = 2 \times \frac{15}{15} + \frac{4}{15}$

$= \frac{30}{15} + \frac{4}{15} = \frac{34}{15}$

8 $11\frac{3}{7} = 11 \times \frac{7}{7} + \frac{3}{7}$

$= \frac{77}{7} + \frac{3}{7} = \frac{80}{7}$

9 $1\frac{7}{12} = 1 \times \frac{12}{12} + \frac{7}{12}$

$= \frac{12}{12} + \frac{7}{12} = \frac{19}{12}$

10 $25\frac{1}{4} = 25 \times \frac{4}{4} + \frac{1}{4}$

$= \frac{100}{4} + \frac{1}{4} = \frac{101}{4}$

math Antics Worksheets

Name: _____

Date: _____

Converting Improper Fractions by Dividing

F-MN 4

Instructions: You can convert an improper fraction into a mixed number just by dividing the top number (numerator) by the bottom number (denominator). The answer to the division is the whole number part of the mixed number and the remainder of the division tells you what fraction is left over.

1 $\frac{14}{5} = 2\frac{4}{5}$

$5\overline{)14}$ → 2, -10, remainder 4

divide top by bottom

2 $\frac{23}{7} = 3\frac{2}{7}$

$7\overline{)23}$ → 3, -21, remainder 2

3 $\frac{19}{5} = 3\frac{4}{5}$

$5\overline{)19}$ → 3, -15, remainder 4

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

$4\overline{)11}$ → 2, -8, remainder 3

5 $\frac{31}{7} = 4\frac{3}{7}$

$7\overline{)31}$ → 4, -28, remainder 3

6 $\frac{42}{8} = 5\frac{2}{8}$ or $5\frac{1}{4}$

$8\overline{)42}$ → 5, -40, remainder 2

7 $\frac{50}{9} = 5\frac{5}{9}$

$9\overline{)50}$ → 5, -45, remainder 5

8 $\frac{22}{7} = 3\frac{1}{7}$

$7\overline{)22}$ → 3, -21, remainder 1

9 $\frac{17}{3} = 5\frac{2}{3}$

$3\overline{)17}$ → 5, -15, remainder 2

10 $\frac{84}{9} = 9\frac{3}{9}$ or $9\frac{1}{3}$

$9\overline{)84}$ → 9, -81, remainder 3

math Antics Worksheets

Name: _____

Date: _____

Converting Mixed Numbers and Improper Fractions - Set 1

F-MN 5

Instructions: Use the procedures you've learned to convert each mixed number into an improper fraction, and each improper fraction into a mixed number.

1 $4\frac{1}{6} = 4 \times \frac{6}{6} + \frac{1}{6}$

$= \frac{24}{6} + \frac{1}{6} = \frac{25}{6}$

2 $\frac{36}{5} = 7\frac{1}{5}$

$$\begin{array}{r} 7 \\ 5\overline{)36} \\ -35 \\ \hline 1 \end{array}$$

3 $3\frac{5}{8} = 3 \times \frac{8}{8} + \frac{5}{8}$

$= \frac{24}{8} + \frac{5}{8} = \frac{29}{8}$

4 $\frac{20}{3} = 6\frac{2}{3}$

$$\begin{array}{r} 6 \\ 3\overline{)20} \\ -18 \\ \hline 2 \end{array}$$

5 $7\frac{1}{2} = 7 \times \frac{2}{2} + \frac{1}{2}$

$= \frac{14}{2} + \frac{1}{2} = \frac{15}{2}$

6 $\frac{23}{10} = 2\frac{3}{10}$

$$\begin{array}{r} 2 \\ 10\overline{)23} \\ -20 \\ \hline 3 \end{array}$$

7 $9\frac{2}{3} = 9 \times \frac{3}{3} + \frac{2}{3}$

$= \frac{27}{3} + \frac{2}{3} = \frac{29}{3}$

8 $\frac{29}{6} = 4\frac{5}{6}$

$$\begin{array}{r} 4 \\ 6\overline{)29} \\ -24 \\ \hline 5 \end{array}$$

9 $5\frac{1}{12} = 5 \times \frac{12}{12} + \frac{1}{12}$

$= \frac{60}{12} + \frac{1}{12} = \frac{61}{12}$

10 $\frac{34}{8} = 4\frac{2}{8}$

or $4\frac{1}{4}$

$$\begin{array}{r} 4 \\ 8\overline{)34} \\ -32 \\ \hline 2 \end{array}$$

math Antics Worksheets

Name: _____

Date: _____

Converting Mixed Numbers and Improper Fractions - Set 2

F-MN 6

Instructions: Use the procedures you've learned to convert each mixed number into an improper fraction, and each improper fraction into a mixed number.

1 $5\frac{1}{4} = 5 \times \frac{4}{4} + \frac{1}{4}$

$= \frac{20}{4} + \frac{1}{4} = \frac{21}{4}$

2 $\frac{13}{5} = 2\frac{3}{5}$

$5\overline{)13}$ quotient 2, -10, remainder 3

3 $2\frac{4}{15} = 2 \times \frac{15}{15} + \frac{4}{15}$

$= \frac{30}{15} + \frac{4}{15} = \frac{34}{15}$

4 $\frac{75}{7} = 10\frac{5}{7}$

$7\overline{)75}$ quotient 10, -70, remainder 5

5 $8\frac{1}{8} = 8 \times \frac{8}{8} + \frac{1}{8}$

$= \frac{64}{8} + \frac{1}{8} = \frac{65}{8}$

6 $\frac{16}{5} = 3\frac{1}{5}$

$5\overline{)16}$ quotient 3, -15, remainder 1

7 $12\frac{2}{3} = 12 \times \frac{3}{3} + \frac{2}{3}$

$= \frac{36}{3} + \frac{2}{3} = \frac{38}{3}$

8 $\frac{30}{4} = 7\frac{2}{4}$ or $7\frac{1}{2}$

$4\overline{)30}$ quotient 7, -28, remainder 2

9 $6\frac{2}{5} = 6 \times \frac{5}{5} + \frac{2}{5}$

$= \frac{30}{5} + \frac{2}{5} = \frac{32}{5}$

10 $\frac{100}{11} = 9\frac{1}{11}$

$11\overline{)100}$ quotient 9, -99, remainder 1