

Name:

Period:

Notes 2-5

Int 1

Add/Subtract MIXED Fractions

Unit 2

Ex. 1: $6\frac{1}{8} + 2\frac{5}{8} =$

IF you ARE JUST ADDING → the Denominators are the same already... Add the whole #'s of the fractions.

$(6)\frac{1}{8} + (2)\frac{5}{8} \quad \frac{1}{8} + \frac{5}{8} = \frac{6}{8}$

$8\frac{6}{8}$

Remember to simplify

$\frac{6}{8} \div 2$

$\frac{3}{4}$

so...

$8\frac{3}{4}$

Ex. 2: $7 + 2\frac{3}{8} = 9\frac{3}{8}$

* If you are Adding... ADD the whole #'s & stick on the fraction

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$$\text{Ex. 3: } -8\frac{1}{2} - 2\frac{2}{3} = -8\frac{1}{2} + -2\frac{2}{3}$$

#① change to ADD the opposite #② is a BIGGER Negative!
 a Negative plus a Negative
 We need to ADD!

#③ ADD the whole #'s $-8 + -2 = -10$

#④ ADD the fractions

#⑤ Need a Common DENOMINATOR!

$$\begin{array}{c} \frac{1}{2} + \frac{2}{3} \\ \nearrow \text{by 3} \quad \nwarrow \text{by 2} \\ \frac{3 \cdot 1}{3 \cdot 2} + \frac{2 \cdot 2}{3 \cdot 2} \\ \frac{3}{6} + \frac{4}{6} = \frac{7}{6} \end{array}$$

Answer:

$$\boxed{-10\frac{7}{6}}$$

#⑥ There is a whole HIDING in there!

$$\text{so... } -10\frac{7}{6} = -10\frac{6}{6} + \frac{1}{6}$$

$$\text{so } \boxed{-11\frac{1}{6}}$$

BETTER ANSWER! :)

$$\text{Ex. 4: } -5\frac{2}{7} + \left(-6\frac{3}{14}\right) =$$

Here's another way that ALWAYS works!

① CHANGE BOTH into improper fractions.

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

$$35 + 2 = \frac{37}{7}$$

$$6\frac{3}{14}$$

$$84 + 3 = \frac{87}{14}$$

$$\frac{2 \cdot 14}{3 \cdot 14} = \frac{28}{84}$$

② So the problem changes to:

*we need to get common denominators!

We can make both into 14.

$$-\frac{37 \cdot 2}{7 \cdot 2} = -\frac{74}{14} + \frac{-87}{14} = \boxed{\frac{-161}{14}}$$

*CHANGE THEN put the - BACK ON.

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① CHANGE both into IMPROPER FRACTIONS

Ex. 5: $7 - 2\frac{3}{8} =$

16 + 3

it's a whole # → $\frac{7}{1} - \frac{19}{8}$

② GET A COMMON DENOMINATOR!

$$\frac{8 \cdot 7}{8 \cdot 1} - \frac{19}{8}$$

③ Solve & simplify if needed.

$$\frac{56}{8} - \frac{19}{8} = \boxed{\frac{37}{8}}$$

← you can keep your answer like this!