Name **ANSWERS** Date _____

Adding Mixed Numbers and Improper Fractions on a Number Line

Mixed Number:
A number with an integer (a whole number) **and** a proper fraction (a fraction with a numerator that is less than the denominator).

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

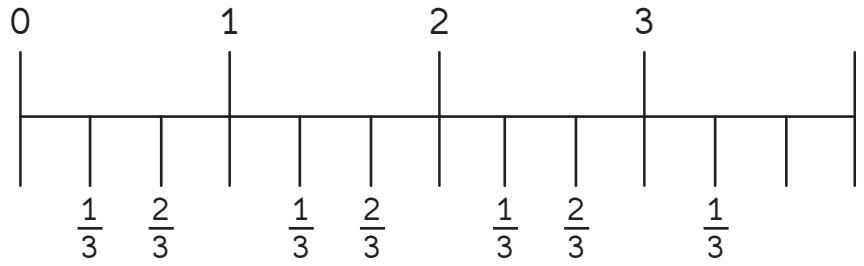
Improper Fraction:
A fraction that has a numerator that is **greater** than the denominator.

$\frac{8}{3}$ $\frac{5}{4}$

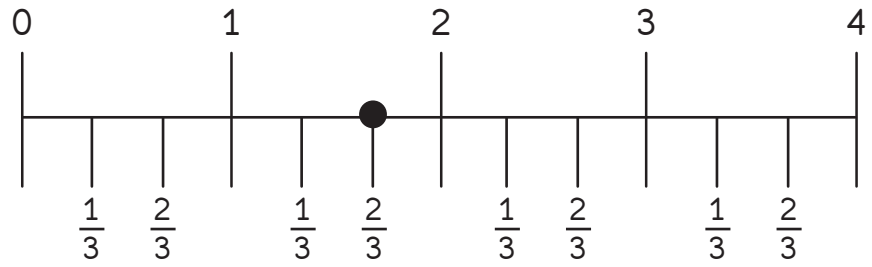
★ When adding mixed numbers and improper fractions with the same denominator (like fractions), where do you begin?

★ Consider the sum of $1\frac{2}{3}$ and $\frac{8}{3}$. Use these three steps to add these two numbers using a number line.

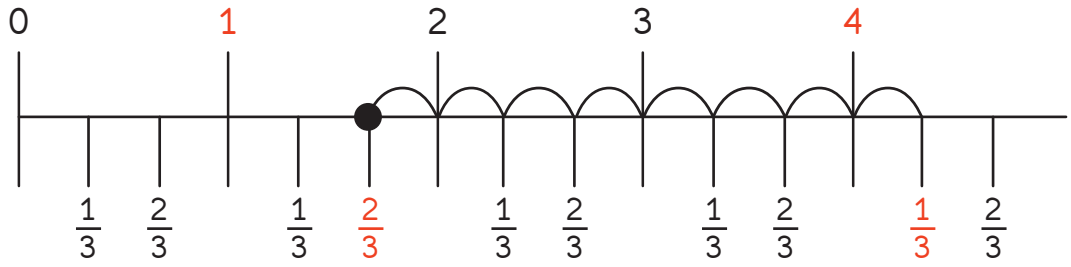
Step 1) Estimate a good length for the number line and draw it with denominator-sized intervals.



Step 2) Identify your mixed number on the number line.



Step 3) Add by counting up $\frac{8}{3}$ (eight intervals or eight-thirds) on the number line and identify where you end up. That is your answer.



Therefore, the sum of $1\frac{2}{3}$ and $\frac{8}{3}$ is $4\frac{1}{3}$.

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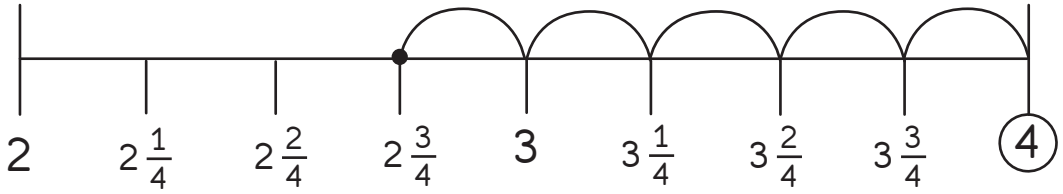
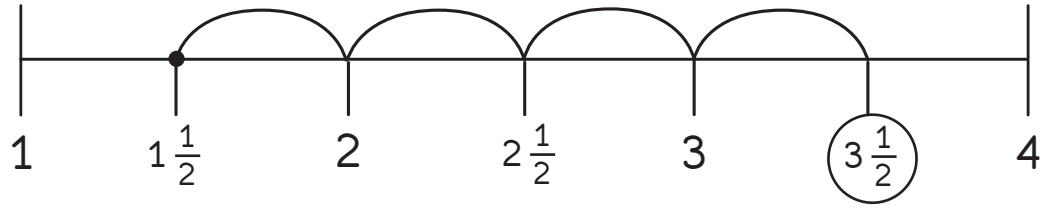
Adding Mixed Numbers and Improper Fractions on a Number Line

Directions: Use the three-step process to add the mixed number and improper fraction on the number line provided. Extend the number line if needed. Simplify your answer if possible.

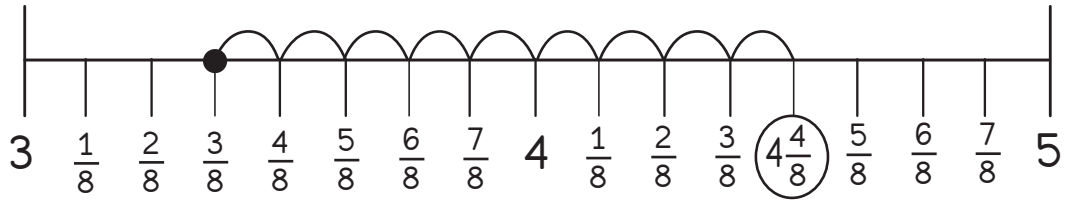
1. $2\frac{3}{4} + \frac{5}{4} = 4$



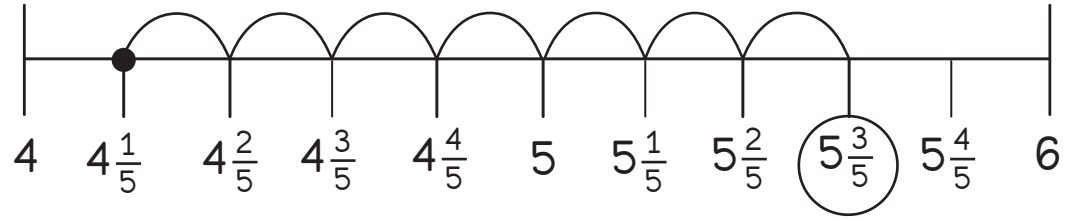
2. $1\frac{1}{2} + \frac{4}{2} = 3\frac{1}{2}$



3. $3\frac{3}{8} + \frac{9}{8} =$ $4\frac{4}{8}$ or $4\frac{1}{2}$



4. $4\frac{1}{5} + \frac{7}{5} = 5\frac{3}{5}$



5. $2\frac{5}{6} + \frac{10}{6} =$ $4\frac{3}{6}$ or $4\frac{1}{2}$