1. Add.

a. \( \frac{2}{4} + 1\frac{1}{5} = \frac{3}{5} + \frac{1 \times 5}{4 \times 5} + \frac{1 \times 4}{5 \times 4} \)

\[ 3 + \frac{6}{20} + \frac{4}{20} = \frac{39}{20} \]

b. \( \frac{2}{3} + 1\frac{2}{5} = \frac{3 \times 3 \times 5}{4 \times 5} + \frac{2 \times 4}{5 \times 4} \)

\[ 3 + \frac{1 \times 5}{20} + \frac{8}{20} = \frac{22}{20} = \frac{43}{20} \]

c. \( 1\frac{2}{3} + 2\frac{1}{3} = \frac{3}{3 \times 3} + \frac{1 \times 5}{3 \times 5} \)

\[ 3 + \frac{9}{15} + \frac{5}{15} = \frac{38}{15} \]

d. \( 4\frac{2}{3} + 1\frac{2}{5} = \frac{5 \times 3}{3 \times 5} + \frac{2 \times 3}{5 \times 3} \)

\[ 5 + \frac{10}{15} + \frac{6}{15} = \frac{32}{15} = \frac{11}{15} = 6\frac{1}{15} \]

e. \( 3\frac{3}{7} + 4\frac{5}{7} = \frac{7}{3 \times 7} + \frac{9 \times 3}{7 \times 3} \)

\[ 7 + \frac{22}{21} + \frac{32}{21} = \frac{81}{21} = \frac{81}{21} \]

f. \( 2\frac{6}{7} + 5\frac{2}{3} = \frac{7 \times 3}{3 \times 3} + \frac{2 \times 7}{3 \times 7} \)

\[ 7 + \frac{18}{21} + \frac{14}{21} = \frac{32}{21} < \frac{31}{21} \]

\[ 7\frac{18}{21} = 8\frac{11}{21} \]

g. \( 15\frac{1}{5} + 3\frac{5}{8} = \frac{18 \times 8}{5 \times 8} + \frac{5 \times 5}{8 \times 5} \)

\[ 18 + \frac{8}{40} + \frac{25}{40} = \frac{33}{40} \]

h. \( 15\frac{5}{8} + 5\frac{2}{5} = \frac{20 \times 5}{8 \times 5} + \frac{2 \times 8}{5 \times 8} \)

\[ 20 + \frac{25}{40} + \frac{10}{40} = 20 \frac{45}{40} = 21\frac{1}{40} \]
2. Erin jogged $2\frac{1}{4}$ miles on Monday. Wednesday, she jogged $3\frac{1}{3}$ miles, and on Friday, she jogged $2\frac{2}{3}$ miles.

How far did Erin jog altogether?

$2\frac{1}{4} + b = 8\frac{1}{4}$

Erin jogged $8\frac{1}{4}$ miles altogether.

3. Darren bought some paint. He used $2\frac{1}{4}$ gallons painting his living room. After that, he had $3\frac{2}{5}$ gallons left.

How much paint did he buy?

He bought $6\frac{1}{12}$ gallon of paint.

4. Clayton says that $2\frac{1}{2} + 3\frac{3}{5}$ will be more than 5, but less than 6 since $2 + 3$ is 5. Is Clayton’s reasoning correct? Prove him right or wrong.

Clayton is incorrect. It will be more than 6 but less than 7, because the fractional part equals more than 1 whole. The sum is $6\frac{1}{10}$. 