Name _____ Date _____

# Mixed Numbers and Models

Example

If the denominators are different, first change the parts into parts of the same size: $\frac{1}{2} = \frac{3}{6}$, $\frac{1}{3} = \frac{2}{6}$.

$$1\frac{1}{2} + 2\frac{1}{3} = 3 + \left(\frac{3}{6} + \frac{2}{6}\right) = 3\frac{5}{6}$$

$$4\frac{3}{4} - 1\frac{1}{2} = 3 + \left(\frac{3}{4} - \frac{2}{4}\right) = 3\frac{1}{4}$$

**1** ON YOUR OWN Work it out. First write the parts with the same denominator.

a) $2\frac{1}{4} + 1\frac{1}{2} = \square + \left(\frac{\square}{4} + \frac{\square}{4}\right) = \square\frac{\square}{4}$

b) $1\frac{1}{3} + 3\frac{1}{2} = \square + \left(\frac{\square}{6} + \frac{\square}{6}\right) = \square\frac{\square}{6}$

c) $2\frac{1}{5} + 1\frac{1}{2} = \square + \left(\frac{\square}{10} + \frac{\square}{10}\right) = \square\frac{\square}{10}$

d) $4\frac{3}{4} - 1\frac{1}{2} = \square + \left(\frac{\square}{4} - \frac{\square}{4}\right) = \square\frac{\square}{4}$

e) $5\frac{5}{6} - 2\frac{2}{3} = \square + \left(\frac{\square}{6} - \frac{\square}{6}\right) = \square\frac{\square}{6}$

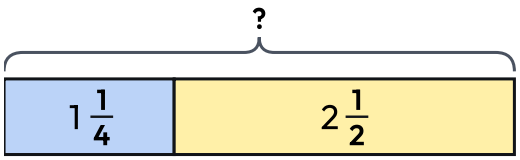
f) $3\frac{2}{3} - 1\frac{1}{4} = \square + \left(\frac{\square}{12} - \frac{\square}{12}\right) = \square\frac{\square}{12}$

Names (pair) _____ Date _____

# PART 2 Models

**Part-whole**

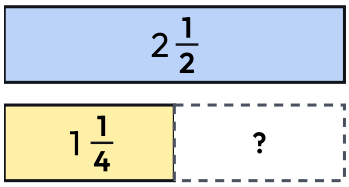
Ivan read for $1\frac{1}{4}$ h on Saturday and $2\frac{1}{2}$ h on Sunday. How long altogether?




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

**Comparison**

A board is $2\frac{1}{2}$ m, a stick is $1\frac{1}{4}$ m. How much longer is the board?




$2\frac{2}{4} - 1\frac{1}{4} = 1\frac{1}{4}$ m

**2** IN PAIRS **Draw a model.** One student draws the model (part-whole or comparison), the other writes the calculation. Swap roles for each problem.

**a)** On Monday Ana ran $2\frac{1}{2}$ km, and on Tuesday $1\frac{3}{4}$ km. How many kilometres did she run altogether?

Answer: _____

**b)** A blue ribbon is $3\frac{1}{4}$ m, and a red one is $1\frac{1}{2}$ m. How much longer is the blue ribbon?

Answer: _____

**c)** A bottle holds $2\frac{3}{4}$ l of water. Mia drank $1\frac{1}{3}$ l. How much water is left?

Answer: _____

**d)** Luka is $1\frac{1}{2}$ m. His dad is $\frac{1}{4}$ m taller. How tall is his dad?

Answer: _____

★ ON YOUR OWN **Exit card.** $2\frac{1}{3} + 1\frac{1}{2} = \square\frac{\square}{6}$