

Handout**4 – 1**
Section 21

Enrichment

Shared Expenses**ANSWER
KEY**

1. Clarissa, Felix and Mei want to buy a video game together. It costs \$60.

- Clarissa contributes 3 times as much money as Felix.
- Felix contributes twice as much money as Mei.
- Mei contributes \$5.25.

How much more money do the 3 friends need to buy the video game?

Money contributed by Mei: \$5.25

Money contributed by Felix:

$$\begin{array}{r} 1 \\ 5.25 \\ + 5.25 \\ \hline 10.50 \end{array} \text{ So, } \$10.50.$$

Money contributed by Clarissa:

$$\begin{array}{r} 1 \\ 10.50 \\ + 10.50 \\ \hline 21.00 \end{array} \quad \begin{array}{r} 1 \\ 21.00 \\ + 10.50 \\ \hline 31.50 \end{array} \text{ So, } \$31.50.$$

Money contributed by the 3 friends:

$$\begin{array}{r} 1 \\ 5.25 \\ + 10.50 \\ \hline 15.75 \end{array} \quad \begin{array}{r} 1 \\ 15.75 \\ + 31.50 \\ \hline 47.25 \end{array} \text{ So, } \$47.25.$$

Money needed to buy the video game:

$$\begin{array}{r} 599 \\ 60.00 \\ - 47.25 \\ \hline 12.75 \end{array} \text{ So, } \$12.75.$$

The 3 friends need **\$12.75** to buy the video game.

2. Camilla is saving up to buy a new bicycle. During the first week, she saved \$11. During the following 2 weeks, she saved \$9.50 each week. Then, for the next 4 weeks, she saved \$11.75 each week. Her father says that he will contribute half of the amount that Camilla has saved. How much money will her father give her to buy her new bicycle?

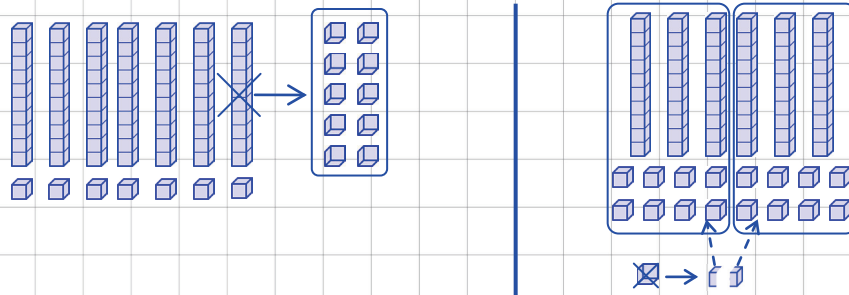
Money saved up by Camilla:

$$\begin{array}{r} 11 \\ 9.50 \\ + 9.50 \\ \hline 19.00 \end{array} \text{ So, } \$19.$$

$$\begin{array}{r} 11 \\ 11.75 \\ + 11.75 \\ \hline 23.50 \end{array} \quad \begin{array}{r} 1 \\ 23.50 \\ + 23.50 \\ \hline 47.00 \end{array} \text{ So, } \$47.$$

$$\begin{array}{r} 1 \\ 11 \\ 19 \\ + 47 \\ \hline 77 \end{array} \text{ Camilla has saved up } \$77.$$

Father's contribution:
 $77 \div 2 = 38.50$ So, \$38.50.



Camilla's father will give her **\$38.50** to buy her new bicycle.