

Name _____

Date _____

1. Cathy collects the following information about her dogs, Stella and Oliver.

Stella	
Time Spent Getting a Bath	Weight
36 minutes	32 kg

Oliver	
Time Spent Getting a Bath	Weight
25 minutes	7 kg

Use the information in the charts to answer the questions below.

a. Estimate the total weight of Stella and Oliver.

$$32 \text{ kg} + 7 \text{ kg} \\ \approx 30 \text{ kg} + 10 \text{ kg} = 40 \text{ kg}$$

b. What is the total weight of Stella and Oliver?

$$\begin{array}{r} 32 \text{ kg} \\ + 7 \text{ kg} \\ \hline 39 \text{ kg} \end{array}$$

c. Estimate the total amount of time Cathy spends giving her dogs a bath.

$$36 \text{ minutes} + 25 \text{ minutes} \\ \approx 40 \text{ minutes} + 30 \text{ minutes} = 70 \text{ minutes}$$

d. What is the actual total time Cathy spends giving her dogs a bath?

$$\begin{array}{r} 36 \text{ minutes} \\ + 25 \text{ minutes} \\ \hline 61 \text{ minutes} \end{array}$$

e. Explain how estimating helps you check the reasonableness of your answers.

If my actual answer is close to my estimate, then I know my answer is reasonable.

2. Dena reads for 361 minutes during Week 1 of her school's two-week long Read-A-Thon. She reads for 212 minutes during Week 2 of the Read-A-Thon.

a. Estimate the total amount of time Dena reads during the Read-A-Thon by rounding.

$$\begin{aligned} & 361 \text{ minutes} + 212 \text{ minutes} \\ \approx & 400 \text{ minutes} + 200 \text{ minutes} \\ = & 600 \text{ minutes} \end{aligned}$$

b. Estimate the total amount of time Dena reads during the Read-A-Thon by rounding in a different way.

$$\begin{aligned} & 361 \text{ minutes} + 212 \text{ minutes} \\ \approx & 400 \text{ minutes} + 210 \text{ minutes} \\ = & 610 \text{ minutes} \end{aligned}$$

c. Calculate the actual number of minutes that Dena reads during the Read-A-Thon. Which method of rounding was more precise? Why?

$$\begin{array}{r} 361 \text{ minutes} \\ + 212 \text{ minutes} \\ \hline 573 \text{ minutes} \end{array}$$